HUMAN SETTLEMENT POLICIES

IN PERIODS OF ECONOMIC STRESS

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Model Canadian Monograph

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INTRODUCTION

This monograph is intended to serve as a model for the various country submissions to the research colloquium on human settlement policies in periods of economic stress. The symposium is primarily concerned with short-run economic concerns. It has been traditional, when examining the economic role of settlements, to take a longer term perspective and to focus on consequences for economic growth, productivity, income distribution, structural diversification, and so forth. Indeed, a number of currently planned or recently concluded colloquia have such a longer term economic focus.

In the current economic environment, it appears to be not only appropriate but essential that the short-term implications, particularly with respect to inflation and unemployment, be addressed as well.

This model monograph thus has two aims. First, it attempts to facilitate the identification and comparison of research work in this field. Both the breadth of settlement concerns, and the scattered research efforts linking those concerns to economic stability issues require that minimal order be imposed on our discussions. Hence our first task is to offer a general framework for organizing and presenting material.

Our second task is to review Canadian research experience with regard to the colloquium's theme. This is designed both to illustrate what format other countries' monographs might take, and to provide substantive information on the problem under investigation.

In Chapter 1, we attempt to provide a structured framework for identifying the major concerns in this policy domain. This is done by reviewing existing conceptions, and by analysing the distinctive features of settlements that concern policymakers.

Chapter 2 is devoted to an explanation of how settlement policies can be related to current economic concerns. We consider first the potential impact of settlement policies on the economy, and then the impact of economic policies on settlements.

The discussion in Chapter 2 is intended to provide guidelines and definitions for researchers to explore the colloquium theme as it pertains to their respective countries in a systematic fashion.

In Chapter 3, we do precisely that for Canada. We provide first an overview of the economic and settlement situations in Canada. Then we review research on the interaction between economic and settlement concerns that has been undertaken in Canada. Country monographs are expected to follow the orientation established in Chapter 3, but emphasizing their unique economic and settlement situations and research experiences.

Chapter 4 raises several issues that emerge from this study, largely to provide guidelines and cautions for future research, based on each country's experience.

Chapter 5 summarizes the work of the monograph and identifies the most important conclusions.

CHAPTER 1

SETTLEMENT POLICIES: THEORY AND PRACTICE

1.1 What are Settlement Policies?

Any attempt to deal analytically with settlement policies very quickly encounters a fundamental attribute of this subject, and that is its global nature. According to the United Nations, human settlement policies are those related to the development, protection and improvement of the human settlement environment.[1] Areas of concern that are included in this problem domain are:

1) Comprehensive Development Planning.
2) Management of Settlements' Development.
3) Population Growth and Distribution.
4) Rural Development.
5) Housing and Related Facilities.
6) Transitional and Marginal Areas.
7) Recreation and Leisure.
8) Interaction between Building and the Environment of Human Settlements.
9) The Problems of Central City Areas.
10) The Environment of the Central Areas of Cities.
11) Industry.
12) Transport and Communication.
13) Water Supply, Sewage and Waste Disposal.
14) Human Wealth and Welfare Factors.
15) Social, Cultural and Aesthetic Factors.

Focussing world attention on this issue, and giving it sharper definition were the aims of the United Nations Conference on Human Settlements (Habitat) in Canada in 1976. In its summary volume, the IIED states:

> The scope and arrangement of subject areas within this volume basically conform to the substantive agenda of the Conference. Recognizing the breadth of topics subsumed under the subject of human settlements, it is hoped that this rendering of the subject matter will contribute to the dialogue before, during and after the Conference which is seeking to refine the conceptual framework within which human settlements problems are studied. [Emphasis added.]

The work is divided into seven chapters to correspond with the seven substantive agenda items of the Conference.

1. Settlement policies and stragegies.
2. Settlement planning.
3. Shelter infrastructure and services.
4. Land.
5. Public participation.
6. Institutions and management.
7. International cooperation.[2]

Unfortunately, the Conference was not able to "refine the conceptual framework within which human settlement problems are studied". Perhaps this was inevitable, given the ambitious objectives of the Conference, its multinational focus, and its emphasis on environmental and developmental concerns. The various suggestions and recommendations made at the Conference, while noteworthy for their good intentions, did not lead to a breakthrough in our ability to conduct research and policy analysis in the area of settlement concerns.

In his state-of-the-art study, Niles Hansen arrives at a similar conclusion:

"Policy makers concerned with regional and urban problems should have a clear grasp of the factors that influence the evolution of human settlement systems. Yet despite increasing interest in human settlement issues, the relevant spatial-temporal processes are still imperfectly understood."[3]

Hansen goes on to argue that most theories are analytically weak, that the more rigorous theories are of modest policy relevance, and that conventional ideas are almost all simplistic and erroneous. Not surprisingly, most policy efforts in the area have been judged to be failures, and

"the difficulties are related less to the resources devoted to regional development efforts than to an inadequate conceptual basis for regional policies."[4]

The only optimistic note he sounds is the recent emergency in the U.S. of analytical focus on relevant spatial entities, in particular functional economic areas and the spread of this development to Great Britain and Japan. He concludes:

"Hopefully, analyses based on the data being organized in terms of these regions will lead to greater understanding of the structure and evolution of human settlement systems..."[5]

One consequence of imprecision regarding settlement concerns has been a tendency to see such concerns as the outgrowth of, and in conflict with economic concerns, particularly economic growth. This perception was emphasized by countries as diverse as Japan, Finland, Poland and Yemen at the Habitat Conference. Zero economic growth was even advocated as a way to solve our most pressing settlement problems. The past decade of close to zero growth has brought no such relief, and serves to confirm our

concern over the superficial nature of many assertions that are made regarding the economic consequences of settlement matters.

Such a situation creates problems for a Conference like this, whose aim is to assess how settlement concerns interact with contemporary economic problems. For the current combination of high unemployment and inflation has been costly for all nations. Some of the costs are transmitted via the impact of inflation and unemployment on key settlement activities. At the same time, settlement policies may aggravate already critical economic circumstances.

But these interactions cannot be rigorously analysed in the absence of an analytical structure capable of explaining settlement issues. The best we can hope to achieve under the circumstances is a review of research findings with regard to specific impacts of particular policies in member countries. Such a review might, however, provide the impetus and direction for a more systematic attack on the issue in the future.

1.2 A Framework for Identifying Research on Settlement Policies

In order to compare diverse research findings on a multiplicity of issues, it was felt that a simple classification mechanism might be helpful. This section develops a framework identifying the various components both of settlement concerns and of economic concerns. From these components we can establish all possible interactions between economic and settlement concerns, and hence the impact of policies in each domain on concerns in the other domain.

Needless to say, we shall be able to examine in depth only a small subsample of all possible policy impacts suggested by this framework. However, if other countries find it useful as well, the framework will facilitate effective dialogue at the symposium and assist in the preparation of the consolidated conference report.

A classification scheme should capture and highlight the basic distinctions between components. Two such distinctions appear to be of particular importance with regard to settlement concerns: level of aggregation and policy focus.

The former usually entails two distinct levels, microspatial and macrospatial. This distinction has also been referred to by Professor Brian Berry as one between "cities as systems" and "systems of cities".[6] For our purposes, we shall refer to this distinction as emphasizing on the one hand phenomena <u>within</u> spatial units, and on the other, <u>between</u> units.

In reviewing the literature, we find that settlement policies focus both on outcomes and on adjustment processes. In Europe, settlement policies appear to be more outcome-oriented, perhaps reflecting the generally greater level of public sector involvement. In North America, the emphasis tends to be on modifying the process of market adjustments, such as the mobility of goods or factors of production. Each approach, to be effective, must recognize elements of the other. Intervening in process without an appreciation of the likely outcome would be merely tinkering. Intervening in terms of identifying explicit outcomes without an appreciation of how they will be attained would be largely wishful thinking.

But these different orientations do feature emphases on different policy instruments and different overall settlement strategies. Hence is is useful to be aware of this dichotomy in identifying various settlement concerns.

Turning to economic concerns, the traditional dichotomy is that between short-term and long-term. While well-known within the sphere of economic policy analysis, this dichotomy raises certain problems when applied to interactions with settlement concerns.

In many countries, the goal of settlement policy is essentially a long-run one such as altering the distribution of population, or reconstructing old neighbourhoods in a metropolitan area. Both the implementation of such major efforts, and the realization of results are necessarily long-term.

The concern of this monograph is with shorter-term economic consequences. Our evaluation of settlement policies is restricted to their impact on economic stability, as measured by inflation and unemployment. This raises an important evaluation problem. By deliberately omitting from our inquiry the longer-term consequences of settlement policies (and indeed consequences of a non-economic nature such as social, political, etc.), our frame of reference is necessarily incomplete. What we are offering, therefore, is only a consideration of selected impacts. A judgment on the overall efficacy of such policies cannot be inferred from our analysis.

1.3 A Classification Scheme for Settlement Concerns

The classification scheme we shall propose derives from the two major issues noted above, namely the dichotomy in terms of policy focus (outcome-oriented vs. adjustment mechanisms) and level of aggregation (between vs. within units). Table 1.1 summarizes the two-way classification scheme.

TABLE 1.1

Typology of Settlement Policy Concerns

Policy Focus	Levels of Aggregation	
	Between Units	Within Units
Outcome Orientation	I	II
Dynamic Adjustments	III	IV

A careful review of a variety of listings of settlement issues, and a refinement and sorting of them into the four basic categories yields the material presented in Table 1.2. The Canadian Material, reflecting this country's unique experiences, will use only a relevant subset of these items, specifically I(d)(ii) (Development Disparities) and IV(a)(i) (Housing Development). In addition we shall examine an issue that greatly influences settlements but is not really a settlement concern, and that is energy pricing. Other countries may feel it necessary to stress other concerns, and indeed may wish to add concerns that reflect their own experiences and policy approaches more accurately.

TABLE 1.2

DETAILED CLASSIFICATION OF SETTLEMENT POLICY CONCERNS

POLICY FOCUS

SETTLEMENT UNITS

I. (a) Urban Size Distribution

(i) Primate City
(ii) Mid-Size City
(iii) New Towns

(b) Rural-Urban

(i) Degree of Urbanization
(ii) Intervening Towns
(iii) Remote areas

OUTCOMES

(c) Distance Concerns

(i) Market Access
(ii) International Markets

(d) Regional Balance

(i) Income Disparities
(ii) Development Disparities

WITHIN UNITS

II. (a) Economic Base

(i) Urban Economic Structure
(ii) Resource Towns
(iii) Service Towns

(b) Market Structure

(i) Competition
(ii) Monopoly and Regulation

(c) Public Sector Concerns

(i) Productivity/Efficiency
(ii) Costs
(iii) Supply Problems
(iv) Revenue System
(v) Pricing
(vi) Demands for Public Services

(d) Land Use

(i) Suburban Sprawl
(ii) Density/Congestion
(iii) Underutilized Land
(iv) Land Costs
(v) Housing

(e) Environment

(i) Air
(ii) Water
(iii) Waste

(f) Social Concerns

DYNAMIC ADJUSTMENTS

III.

(a) Trade (goods and services)

(b) Migration

(i) Internal
(ii) International

(c) Capital Flows

(i) Financial Savings
(ii) Industrial Location and Relocation

(d) Innovation

(e) Income Flows

IV.

(a) Development

(i) Housing Development
(ii) Commercial Development
(iii) Industrial Development
(iv) Infrastructure Development
(v) Tax Base Growth

(b) Growth/Decline

(i) Growth Rates (Economic)
(ii) Demographic Change

(c) Travel/Transportation

(i) Commuting
(ii) Shopping

(d) Communication

(i) Business
(ii) Other

Footnotes for Chapter 1

1. United Nations, Human Settlements: The Environmental Challenge, 1974.

2. International Institute for Environment and Development, Human Settlements: National Reports: Summaries and Reference Guide, Pergamon Press, 1976, Introduction.

3. Niles M. Hansen, ed., Human Settlement Systems, Ballinger, 1978, XV.

4. Ibid., p. 8.

5. Ibid., p. 18.

6. Brian J.L. Berry, "Cities as Systems Within Systems of Cities", paper presented to the Annual Meeting of the Regional Science Association, December 1963.

CHAPTER 2

IDENTIFYING POLICY IMPACTS

Introduction

The matrix presented in Table 1.2 helps us to identify all possible relationships between economic and settlement concerns. This is useful because settlement policy rarely concerns itself with economic consequences, and economic policy puts a low priority on settlement impacts. The scheme suggests relevant linkages that are not usually recognized. This can be helpful both in identifying hitherto neglected research findings, and in pointing to major research gaps.

In this chapter, we shall use the matrix largely for illustrative purposes. We shall consider first the link between settlement policies and economic concerns, and then the reverse link, between economic stabilization policies and settlement concerns.

Of necessity, we shall choose only that subset of settlement concerns that appears to be of widest applicability in member countries.

Among settlement policies, we shall concentrate on the following (from Table 1.2).

IV(a)(i)	Housing Development
I(d)(ii)	Regional Development Disparities
II(c)(iv)	Local Government Revenue

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IV(a)(i)	Housing Development
I(d)(ii)	Regional Development Disparities
II(c)(iv)	Local Government Revenue

III(a)	Interregional Trade
II(e)	Environmental Protection
I(a)	Urban Size Distribution

We shall also consider one issue tangentially but importantly related to settlement issues, energy pricing.

2.1 Types of Policy Research

There are three conceivable levels at which interactions can be assessed. The first, formally most elegant approach is to try to represent the various elements of relevance to the analysis, and their multiple interactions, in a mathematical model.

Most countries now have rather sophisticated macroeconometric models of their national economies. Virtually all these models are designed to analyse short-term economic trends, particularly in inflation and unemployment. Many of these same models are designed to model selected settlement issues, such as housing activity and regional income and employment trends.

In addition, there are several specifically designed settlement models, that attempt to explain a much wider range of settlement variables. Most ambitious, perhaps, on an international scale, is the work of the International Institute of Applied Systems Analysis (IIASA). The emphasis in this work is primarily on population change and the intention is to apply the model in a number of different countries.

The settlement dimensions in the early economic models were very sketchy, while the economic dimensions in the settlement models are virtually non-existent. Although the econometric models have bene icnreasingly "regionalized" in recent years, serious problems have been encountered. One is the massive increase in complexity introduced when significant disaggregation is attempted. It is extremely difficult to connect the various regional submodels to each other and therefore to fully integrate the parts into the whole of the national economy.

A more practical limitation is that of data, especially economic data at the local level. This includes both economic accounting variables - production, prices, etc. - and more important, measures of flows of goods, services, labour and capital between units. This gap in turn means that no serious analysis of "leakages" or spillovers can be included. Since small units tend to be extremely open, both to interregional and international leakages, the whole effort to model accurately the behaviour of regions has been seriously arrested. Recent emphasis in the United States on developing systematic data flows for analytically relevant regional entities - functional economic areas (FEA's) - holds out the promise of a breakthrough on this bottleneck, but the costs and benefits remain to be assessed.

A second approach is to work with a somewhat less demanding framework than the general equilibrium approach above. Partial models do permit research to focus on more narrowly defined areas of primary interest to the policymaker. Carefully specified to account for exogenous influences, they can provide useful evidence on key internal migration and empirical relationships.

Research that has demonstrated the impact of key economic variables, such as income and employment differentials, and public service conditions, is an example of the value of this approach.

Finally, the third approach entails attempting to assess the interaction between economic and settlement variables by means of descriptive or conjectural work. At this level, hypotheses are not subjected to formal statistical testing. Although less rigorous than the other two approaches, this work is useful in providing intuitive insights into important relationships. This can come about either by the imaginative extension of abstract theoretical reasoning, or by the assimilation and interpretation of crucial historical experiences. In any event, given the problems of data mentioned above, this type of policy research is often the only approach that can practically be undertaken.

In our ensuing discussion, we shall have occasion to report on research at all three levels.

2.2 The Impacts of Settlement Policies on Economic Stability

Evaluating the efficacy and impact of settlement policies requires, in addition to an appreciation of analytical relationships, a thorough grounding in the particular circumstances of each country. Even where the policy objectives are similar, different countries pursue them with varying intensities of commitment and within widely differing institutional frameworks. For example, in federal states there are multiple levels of government involvement in all settlement

policy issues. This generally serves to blur the policy focus and often produces counterproductive competition.

Even in unitary states, settlement policies are usually assigned priority secondary to sectoral and macroeconomic policies. This means that settlement policies are rarely as diligently pursued and are often sacrificed in the name of these competing goals. This makes the evaluation of settlement policies particularly difficult. An apparently clear, publicly announced commitment to some level of housing activity, for example, often fails to be achieved because greater concern with inflation will displace that goal. Yet this is hardly a housing policy failure, and research should be able to account for these changes in the general policy milieu.

One reason for the low priority assigned to settlement issues is that researchers have not publicized the significance of these interactions.

It seems to be almost universally the case that those interested in settlement policies have very little interest in or understanding of economic concerns, while economists tend to relegate settlement issues to second or third-class levels of concerns. Whether this is due to disciplinary barriers among researchers, or to intrinsic difficulties in moving between these concerns, is not entirely clear.

Since the fundamental assumption underlying this symposium is that the interactions between economic and settlement issues are important, our survey of representative issues constitutes at

least a partial attempt to validate that assumption. The real test will be the weight of evidence that is assembled in the reports on actual impacts by the member countries.

2.2.1 Housing Development (IV(a)(i))

The impact of housing policy on the performance of the economy is more direct, and more systematically researched than any other settlement policy. Certainly since the Second World War, housing has played a key role in stabilization policy in most countries. The reasons are that it is extremely sensitive to financial variables (interest rates, credit rationing, etc.), it has a low import leakage, it has high labour (and therefore employment) content, and it is closely linked to other sectors of the economy such as lumber, appliance and furniture manufacturing. It also responds quickly to modest incentives.

Moreover, its size in total capital formation has meant that it plays an explicit role in most macroeconomic models. Researchers, have, therefore, in the course of their econometric work, been able to estimate the impact of housing on the macroeconomy. Usually the models are highly aggregative (national) in scope and hence only aggregate housing policies such as total starts, are dealt with. Most of the research of this type revealed that stimulating housing in the aggregate would produce increases in income and employment in the short run, although over the long run, the equilibrium path of housing activity would not be significantly altered.

During the 1970s, these models proved to be increasingly unhelpful. Due mainly to fundamental changes in the economic environment, with sustained high interest rates, rapid inflation and unemployment, the behaviour of the housing market was radically altered.

Thus, a major research challenge in this policy area involves a re-examination of the basic assumptions underlying these early models, and a reassessment of the role of housing as an economic stabilizer as a result. For example, particular attention is now being paid to formerly modest construction activities, such as renovation and rehabilitation. Yet little is known about the cyclical properties and economic impact of these activities. Few countries maintain adequate data on such activities. In addition, new emphases on monetarist policies and credit control have probably altered the contracyclical pattern of housing, and research that integrates these new instititional arrangements is in great demand.

2.2.2 Regional Development Disparities (I(d)(ii))

Next to housing, the most widely pursued settlement policy has been the attempt to assist economically disadvantaged regions. In general, the reasons for the failure of those regions to participate equitably in the general prosperity of the nation were only imperfectly grasped, and were often coloured by politically explosive considerations.

The result has been a very wide variety of programs, most of which have appeared with modifications in all countries. They

include direct location assistance to firms, in the form of tax incentives, subsidies and loans; infrastructure development such as roads, ports, downtown renewal; promotion of new towns and/or growth poles; encouraging outmigration from lagging regions.

These policies all tend to have, if anything, a long-term focus. Altering fundamental relationships cannot be expected to work over a short-run period. Nevertheless, there have been occasions when such policies were pursued as contra-cyclical efforts.

Research on the impact of such policies has been notoriously inconclusive. The forces shaping regional economic and demographic structure are intrinsically so complex, that no direct line of causality from policy to outcome can be drawn.

Proper impact analysis requires a careful modelling of the spatial system, while the modesl generally available are either extremely abstract, or simplistic in the extreme. Thus, even core relationships remain very controversial among researchers. Consider the following examples:

a) How much of a real incentive to firms is provided by government grants? Evidence seems to suggest the effect is extremely small.
b) Are firms merely moved between locations, often from more to less efficient sites, or is there a net augmentation of activity?
c) Does infrastructure investment have an important incentive effect?

Since the direct impact of regional policies on settlements themselves remains largely uncertain, the indirect effects, on the macroeconomy is rarely addressed by researchers. It is possible however that the effect is substantial, both because the resources involved are large, and the policies may influence the efficiency and the flexibility of key economic entities.

2.2.3 Local Government Revenue (II(c)(iv))

The local sector is a major component of the national public economy. Hence policies that impact this sector are bound to influence the overall size of the national budget, and hence the role of fiscal policy. Most local governments are severely constrained to balance their budgets especially on non-capital expenditures. The result is that in periods of economic slack, when contra-cyclical policy would call for expanded local expenditures, their revenues shrink and their expenditures are necessarily curtailed.

Some research on this problem of "fiscal perversity" has been undertaken, although not in many countries, and more typically for state or provincial levels of government than for local.

2.2.4 Interregional Trade (III(a))

A widespread device to protect regions has been the creation of barriers to interregional trade. This is particularly the case in federal countries where the regions have some substantial autonomy in influencing interregional trade. Some of the more popular barriers are:

- regional purchasing policies even at premium prices
- marketing boards to restrict imports
- special incentives to regional producers such as favourable tax treatment
- licensing and other restraints on external competition.

The intended effect of such policies is to promote regional employment and enhance the return on regionally owned assets. Research on international trade demonstrates rather convincingly that these diversions entail substantial global welfare losses. In general, although these models are conceptually applicable to interregional trade and factor flows, they have not been well developed. One important reasons is the absence of good data on these flows. There can be little doubt, however, that these barriers will reduce wider regional economic efficiency and adaptability, and may reduce long-term employment even within the region applying the barriers ostensibly for its own benefit.

2.2.5 Environment Protection (II(e))

In the 1960s and 1970s, most governments introduced increasingly stringent regulations designed to improve the quality of the environment. Many such policies were enacted by local and regional governments, and they covered issues as diverse as:

- exhaust emissions
- disposal of solid and liquid wastes
- zoning and land use controls
- health and safety standards.

Regulations tend to be imposed without careful accounting for costs and benefits. Since regulations add to the private cost of production, they will tend to reduce firm productivity and their competitiveness if the regulations are not universally applied. In a recession firms thus penalized may find it harder to survive, deepening and prolonging the slump. A major problem is the lack of evidence on the significance of these costs and the extent to which they augment cyclical problems.

2.2.6 Urban Size Distributions (I(a))

Many countries have deliberately tried to alter the distribution of cities. In particular, some countries have felt that their largest cities were too large, and that diverting growth to middle-sized or small cities would eliminate congestion and other costs attributed to large size, while spreading dynamic forces more widely. Often this thrust was part of a policy for greater regional balance. The research issue here is the absence of conclusive evidence on the costs and benefits of large size. Much scholarly opinion has queried traditional views on this matter, and the evidence on either side is often less than robust.

There is reason to believe that an efficiently organized and functioning urban system can contribute both to short-term economic stability and to growth. Unfortunately, we lack the analysis that can provide us with appropriate guidelines in this area.

2.2.7 Energy Pricing

The rapid rise in world energy prices after 1973 caused major readjustments in local and regional economies. Where energy supplies were plentiful, regions prospered, whereas, often in the same country, energy-poor regions suffered severe declines. Many major programs were launched on the assumption that world prices would continue to escalate. In the past year, the trend has been reversed as excess supplies, especially of petroleum, have emerged.

Research on determinants of world energy prices is a crucial prerequisite for formulating settlement policy. Earlier emphasis was on long-term adjustments. Recent experience demonstrates that energy prices may be extremely volatile in the short run and that they can induce cyclical swings and hence regional instability as a result. This newer question of energy-induced instability requires a major research effort as well.

2.3 The Impact of Economic Policies on Settlement Concerns

2.3.1 Housing

In this section, we examine the likely impact monetary and fiscal policies will have on the major settlement concerns noted above. These policies are largely, although not exclusively, within the domain of the central government. In this discussion we shall ignore intergovernmental issues and assume a single economic policy authority.

Monetary policy in particular has a powerful impact on housing development (IV(1)(i)). This is because of the need to finance housing via capital markets. Indeed, in countries with a large private housing sector, a perennial problem has been policy-induced instability in the housing development sector.

The impact of a high interest rate policy on housing markets is well known. However, the impact on individual local housing markets is not so clear. On the one hand, higher unemployment in low income regions will tend to encourage emigration which contracts the demand for housing. On the other hand, reverse migration from advanced to poorer regions has been observed during cyclical troughs, working in the opposite direction.

2.3.2 Regional Development

Both monetary and fiscal policies pursued at the national level impact regional development (I(d)(ii)) differentially. Certain regions are more responsive to fiscal stimuli than others as a result of structural characteristics, market factors, and openness to other regions. Also, different regions operate at different levels of capacity utilization, so that equivalent stimuli will push some into an inflationary spiral while others will simply absorb some of their excess capacity without price pressures. While obvious, the fact is that this relationship is generally not well enough established empirically to serve as a useful policy guide. Models of regional economies are generally weak, data on crucial economic indicators such as regional real output are lacking, and linkages between the national and regional economies are imperfectly understood.

The result is that the impacts of macro policy at the local level are difficult to evaluate. This ignorance in turn permits monetary and fiscal policies to continue to be designed and implemented virtually exclusively in terms of national indicators and with little regard to impacts on regional development.

2.2.3 Local Government Revenue

Unless central government policy is compensatory it will contribute to the "fiscal perversity" problem of local government revenues (II(c)(iv)) noted above. In a recession, the reduction in the level of output reduces the tax base; in addition, the high levels of interest rates, and the difficulties of access to financial markets may generate serious financing problems. This will be reflected in the quantity and quality of public services that the local government will be capable of providing to the community. Reduced local levels of demand may lead to exaggerated instability in the local economy.

2.3.4 Other Impacts

The impact of monetary and fiscal policies on other settlement issues such as interregional trade (III(a)) and environmental protection (II(e)) are more indirect. Restrictive economic policies, by tending to squeeze regional economies, will foster demands for regional protection in the form of barriers to trade.

Similarly, industries suffering during recessions will press for relief from environmental regulations. If these pressures are not reversed in expansionary periods, the long-term effect in

both domains will be deleterious. The link between stabilization policies and urban size distributions ambiguous to prevent simple generalizations. If firms are more vulnerable to recessions in small urban areas than in large metropolitan areas, the weeding-out process of recessions, especially prolonged ones, may tend to weaken the economic base of smaller areas and give a relative advantage to larger centres.

As for the impact of fiscal and monetary policies on energy concerns, there is a real possibility that severe restraint will lead to reduced energy demand and a fall in prices. This would be particularly true for a large country that can influence world prices. The regional impact might be quite complex, for such restraint could benefit regions consuming energy while penalizing those regions producing energy.

2.4 Summary

The hypothesized relationships that were discussed in this chapter illustrate the scope and significance of interactions in the settlement and economic policy domains. Our discussion was necessarily at a very general level, because we were trying to indicate relationships that are likely to be common to and significant for most countries. We turn, in Chapter 3, to a more detailed evaluation of these relationships as revealed by research in Canada.

CHAPTER 3

CANADIAN EXPERIENCE

Introduction

The close link between economic structure and settlement patterns has been a key aspect of Canada's economic development. The Canadian economy was built upon a sequence of resource developments, ranging from fish, fur and timber in the eighteenth and nineteenth centuries, to wheat, minerals and energy resources in this century.[1]

Exploitation of these resources, primarily intended for export, fostered settlement patterns of a unique type. Each settlement's history was determined to a large extent by the circumstances of its resource base. Because these resources were widely dispersed in space, and their emergence as economically exploitable differed in time, a pattern of temporally and spatially segregated spurts of growth occurred in Canada.

Throughout much of Canada's early history, its economy was essentially an aggregation of quasi-autonomous resource regions. With the twentieth century and first the wheat boom, followed by rapid industrialization during and after the two world wars, integration of the national economy and hence the settlement sytem was accelerated. The central regions - Ontario and Quebec - were the major centres of industrial activity, producing and exchanging consumer and capital goods with the peripheral regions. Within each region, industrial and administrative activities were increasingly concentrated in metropolitan nodes.

Today, the Canadian economy is at an intermediate stage of national economic and spatial integration. Peripheral regions remain heavily dependent on resource exports, and on the importation of manufactured goods from the central economy and from abroad. Both the size and the diversified development of the central regions exercise great influence over the economies in the periphery.

This means that economic circumstances have asymmetrical effects on the settlement system. Resource booms foster growth in the peripheral areas, but the effects on the rest of the economy may be heavily damped. The other side of the coin is that resource collapse, as in parts of the Atlantic region, also have rather modest consequences for the national economy as a whole. Conversely, economic stagnation in the core will tend to retard but not halt growth in the prosperous periphery, but will more severely impact settlements in declining regions.

Since this is not only true, but has to be true, it comes very close to tautology. Changes in economic circumstances will have important consequences for settlements, and in this chapter, we shall examine more fully these relationships.

3.1 The Economic Setting in Canada

3.1.1 Key Features of the Canadian Economy

The Canadian economy still has a large resource sector which is primarily dedicated to exports, and which in turn is largely financed by foreign capital. The manufacturing sector features

processing of resources, and consumer goods. What is conspicuously absent is a large capital goods industry. Manufacturing is also heavily dependent on foreign capital. Finally, the service sector is rather large and sophisticated, with government playing a major role in the total.

This large public sector involvement reflects the historical role of government in fostering resource development, and the more recent evolution of a welfare state system. Moreover, the federal structure of government has produced multiple layers of public activity.

In the postwar period, the Canadian economy underwent a pattern of high growth based on rapid population growth and substantial capital imports. This led to the maturation of the manufacturing sector, and a shift in the composition of exports away from resources.

The 1973 energy crisis proved to be a turning point for Canada as for other Western economies. Inflation began to accelerate and growth was retarded. High interest rates slowed down industrial capital formation. The availability of energy resources in the West, both actual and potential, led to a massive transfer, first of capital and then of population, to Saskatchewan, Alberta and British Columbia.

Canada's manufacturing sector, particularly the automobile industry, became increasingly uncompetitive and has slumped for the past decade. Primary resources have again begun to dominate our export efforts.

3.1.2 Economic Concerns

More recently declining world energy prices have meant slower growth in the West - previously a bright spot in the Canadian economy. The result, as of mid-1982, is continued high inflation, high unemployment, low economic growth and retarded productivity advance. Perhaps a key indicator of these economic difficulties was the decline in the value of the Canadian dollar (vis-à-vis the U.S. dollar).

Related to this decline in economic prospects has been the growing fiscal difficulties of the public sector. Economic slowdown has meant a sharp decline in government revenues and growing demands for government spending and transfers. The rapidly escalating federal deficit has triggered fears of inflation which in turn are felt to be a cause of high interest rates. Simultaneously, public policy has attempted to moderate the fall in the value of the dollar by keeping interest rates above those in the U.S. These high interest rates have constricted capital formation, yet have thus far been unable to reduce inflationary pressures. Particularly hard hit have been the construction and housing industries.

These macroeconomic difficulties have produced secondary problems that are of no less concern. In particular, inflation and unemployment have begun to reverse the postwar gains in eliminating poverty. Moreover, regional disparities may well worsen under the circumstances of poor macroeconomic performance and the reduced budgetary flexibility of the federal government. In addition, there are signs that economic efficiency may be

seriously eroded as labour unions, firms and individuals seek to institutionalize mechanisms to protect themselves from macro-economic failures. Indexation may be a particularly problematical example of this process.

To summarize, virtually every aspect of the economy has performed poorly over the past decade - making the entire economy a persistent and frustrating area of policy concern.

3.1.3 The Economic Policy Milieu

In Canada, the setting of economy policy - especially macro-economic policy - is the concern of the federal government. Monetary policy is its exclusive domain, and tax policy is largely, although not exclusively, set in Ottawa. In addition, exchange rates are influenced by the Bank of Canada.

Two serious qualifications must be recognized, however. The first is that provinces in total have a significant fiscal impact. Their spending (excluding local government) is 93% of the federal government's.[3] Because there is so little effective coordination of provincial and federal expenditure policies (until recently, tax policies were closely coordinated), provinces can offset federal fiscal policies. The evidence, however, is that they have rarely done so in the aggregate, despite the fact that some provinces have, on occasion, done so.

In addition, debt financing can create conflicts. Thus, major federal borrowings have tended to crowd out not only the private sector, but provincial and municipal governments as well.

Conversely, provincial borrowings from abroad have on occasion led to undesired (by Ottawa) upward pressures on the Canadian dollar.

A second constraint on the ability of the federal government to exercise effective policy control arises from the openness of the Canadian economy. Monetary policy is circumscribed by international exchange rate considerations, and its effectiveness in the domestic context has been severely reduced. Similarly, fiscal policies that imact on international capital flows influence the exchange rate.

In sum, the Canadian economy, in an intermediate stage of economic development, now faces its severest test since the depression. Slow growth, high unemployment, rapid inflation, government deficits, a declining dollar, weak export markets arrested improvement in productivity and falling energy prices confront a government with severely circumscribed ability to deal with these concerns.

The policy stance adopted by the federal government until mid-1982 was limited monetarism. It set inflation as its main concern, and has used monetary control as its key policy instrument. The openness of the Canadian economy, the persistence of federal deficits, and some uncertainty about the precise targets for monetary control have, to date, led to no significant improvement with regard to inflation.

Escalating deficits have, at the same time, prevented the federal government from addressing, other than on a sporadic and marginal basis, the problems of unemployment and poverty.

This dilemma has led to renewed thinking about wage and price controls, and in mid-1982, a partial program of restraint on public sector employee incomes was instituted. It seems quite clear that even full wage and price controls will have limited efficacy. The major determinant of Canada's economic performance is the performance of the United States' economy, which until recently was in virtually the same stagnant position as the Canadian.

It would appear, therefore, that a major return to economic prosperity in Canada must await sustained recovery in the United States.

3.2 The Settlement Situation in Canada

3.2.1 Key Features of the Canadian Settlement System[4]

The Canadian settlement system reflects the structure of the Canadian economy. It consists of relatively concentrated urban development in the core region closest to the major u.S. markets (Ontario and Quebec) and pockets of urban development reflecting the nature of the various regional economies in the peripheries. In the West, resource booms have led to large rapidly growing urban centres, whereas in the East, stagnant resource development has produced generally weak urban structures.

The result is wide variation in regional economic performance. It might be expected that over time, labour and capital would move between regions to offset these imbalances. While there has been some such adjustment, the federal structure and local

preferences have tended to impede complete regional adjustment and disparities have not diminished. As a result, much regional policy has been devoted to compensating disadvantaged regions by means of transfer payments. It has been argued, however, that such transfers may actually impede resource allocations, and foster instead increased economic dependency.

The settlement pattern within the core (Ontario and Quebec) regions is relatively sophisticated, consisting of several large metropolitan agglomerations (Toronto, Montreal), a wide range of middle-sized metropolitan areas and a large number of smaller urban areas. Most of these settlements are distributed close to the U.S. border.

In the Western periphery, large metropolitan areas dominate each province. In the East, metropolitan centres are absolutely and relatively smaller. The economies of these various regions reflect to some extent the level of urbanization.

In addition to the size distribution of settlements, there is the question of interaction. The settlement system in Canada is moderately integrated. Partial data on flows of population, goods, and information reveal that flows within regions (provinces) are dominated by the respective metropolitan areas. Interregional flows are more complex, involving primarily flows between each metropolitan area and the largest centres. Hence, linkages within the Atlantic region are modest, although Halifax is linked rather well to Toronto. The situation is somewhat similar in the West.

In the postwar period, economic growth occurred primarily in the largest metropolitan areas, and particularly those west of the province of Quebec. Population growth, associated with this expansion, followed a similar pattern. It was fed by rural-urban migration within each province, by interurban migration primarily to Western metropolitan areas, and by international migration which was directed primarily to Toronto, Montreal and Vancouver. After 1971, these patterns were altered. The retardation of the Canadian economy and especially the manufacturing sector led to severely curtailed immigration.

TABLE 3.1

Recent Population Growth

Provinces	1976-81 (% Change)
Newfoundland	1.7
Prince Edward Island	3.6
Nova Scotia	2.3
New Brunswick	2.8
Quebec	3.3
Ontario	4.4
Manitoba	0.4
Saskatchewan	5.1
Alberta	21.7
British Columbia	11.3
CANADA	5.9
Major Metropolitan Areas	
Halifax	3.6
Quebec	6.3
Montreal	0.9
Ottawa-Hull	3.6
Toronto	7.0
Winnipeg	1.2
Saskatoon	15.3
Calgary	25.7
Edmonton	18.1
Vancouver	8.7

Source: Census of Canada

TABLE 3.2

Metropolitan and Regional Population, 1981 (000)

	Regional Population	Provincial Population	Metro Population	Metro as % of Region
Atlantic	2,234			
Newfoundland		568		
St. John's			155	
Prince Edward Island		123		
Nova Scotia		847		
Halifax			278	
New Brunswick		696		
St. John			114	
			547	24
Quebec	6,438			
Montreal			2,828	
Quebec			576	
Chicoutimi			135	
			3,539	55
Ontario	8,625			
Toronto			2,999	
Ottawa-Hull			718	
Hamilton			542	
Niagara			304	
Kitchener			288	
London			284	
Windsor			246	
Oshawa			154	
Sudbury			150	
Thunder Bay			121	
			5,806	67

TABLE 3.2 (Cont'd)

Metropolitan and Regional Population, 1981 (000)

	Regional Population	Provincial Population	Metro Population	Metro as % of Region
Prairies	4,232			
Manitoba		1,026		
Winnipeg			585	
Saskatchewan		968		
Regina			164	
Saskatoon			154	
			318	
Alberta		2,238		
Edmonton			657	
Calgary			593	
			1,250	51
			2,153	
British Columbia	2,475			
Vancouver			1,268	
Victoria			234	
			1,502	61
North	69			
Yukon			23	
N.W.T.			46	
	24,343			

The rural-urban shift had been virtually completed in any event. The result was a deceleration of growth in the metropolitan areas of the centre in favour of continued expansion in middle-sized cities. Some reverse migration, typical of economic slowdowns, has been observed with regard to the Atlantic region. The West, fuelled by the expected energy boom, saw even higher rates of population growth in its metropolitan areas.

3.2.2 Major Settlement Concerns

At the beginning of the 1970s, three major settlement concerns were being articulated. The first was the historical problem of persistent regional (provincial) disparities. The second was the continued concern over housing in terms both of quantity and quality. Finally, concern over the rapid growth of major metropolitan areas, and the consequent pressures on land and housing prices, on municipal budgets, and on social and environmental relationships was expressed.

The economic reversal since 1973 saw attention shift to the problem of decline and its consequences especially in central Canadian cities heavily dependent on declining manufacturing activity, particularly in the automobile and related industries. Growth has slackened even in the boom cities of Saskatchewan, Alberta and British Columbia.

In addition, new problems have emerged. High interest rates have impacted heavily on housing. This shock has been exacerbated by a shortage of rental units, partly the result of the widespread resort to rent control measures during the inflationary 1970s.

In general, the housing stock had improved throughout the postwar period and the most serious concerns, other than high and variable interest rates, pertain to particular disadvantaged groups - native peoples, the aged, female-headed families and the handicapped.

Suburbanization is continuing but there has not been a serious deterioration of urban cores, as new residential uses and expanding commercial activity have filled the vacuum.

Prospects for maintaining municipal service levels are of concern, as municipal tax bases are weakening, especially in Central and Eastern Canada, and alternative revenue sources, particularly provincial transfers, are not forthcoming. Public transit improvements have been restricted and other aspects of urban infrastructure may well show the effect of local fiscal squeeze in the next few years.

Of greatest immediate concern is the welfare budget of local governments. The protracted decline has added massively to local welfare requirements. Simultaneously, the federal and provincial governments have been retrenching in their respective social programs to limit their deficits. This has compounded the demands that local governments are now having to face.

3.2.3 The Settlement Policy Milieu

Most aspects of settlement policy are assigned, under the constitution, to provincial governments in Canada. These in turn delegate authority and/or resources to municipal or regional

governments as they please. To date provinces have held a tight rein on municipal activities, although recently there appears to be some loosening of these controls.

Nevertheless, the federal government has historically played an important role, particularly with regard to regional disparities and housing.

The former concern reflects the historical persistence of real income and employment disparities among provinces and the political necessity in a federal system, to try to ameliorate those disparities. In Canada, a sequence of federal government efforts to deal with both causes and symptoms has been introduced. These include incentives for capital to move into depressed regions, incentives for labour to move out, and equalization payments to provincial governments. A variety of programs was consolidated under the aegis of a single new agency, the Department of Regional Economic Expansion, in the late 1960s. In 1974, the Department developed a new strategy of General Development Agreements, pursued in cooperation with the respective provinces. Early in 1982, the federal government shifted its approach, creating a central planning agency for both economic and regional development (the Ministry of State for Economic and Regional Development) and a program agency for industrial and regional development (the Department of Regional Industrial Expansion). The new emphasis is to be on major resource developments, opportunities for which were deemed at the time to exist in all regions of Canada.

The housing concern dates back to the interwar period. Federal policy was initially aimed at using housing as a contra-cyclical fiscal device. Over time, its key agency, Canada Mortgage and Housing Corporation, evolved into a full-blown housing policy vehicle. Its mandate was expanded to include urban renewal, land assembly, public housing, infrastructure and energy conservation. Partly through its efforts, virtually every province evolved its own housing ministry, as did the major cities, complementing the federal agency and providing Canada with a very large and comprehensive housing policy capability.

In the late 1960s, it became apparent that the regional policy efforts on the one hand, and housing policy on the other, impacted on urban areas but lacked a coordinated, well-defined set of goals. It was felt that a consistent policy approach to urban areas could facilitate both regional and housing policy goals, and, in addition, serve the special needs of the rapidly growing metropolitan areas. The Ministry of State for Urban Affairs was created in 1970 to try to fill this gap, but the changed economic circumstances, provincial hostility and the difficulty of formulating a consistent urban policy led to its demise within a decade.

At present, the direction of federal settlement policy is somewhat uncertain. The reorganization of its regional policy agencies is still underway, and no clear new policy direction is as yet discernible. Housing policy has also featured serious retrenchment, for budgetary reasons as well as part of a growing belief that, except for target groups, no national housing issues are priorities at this time.

If federal settlement policy is in a state of redefinition, the fact remains that the federal government continues to have a major indirect impact on the settlement system. Its control of economic policy instruments gives it substantial influence over housing markets, capital marekts, and labour markets, all of which crucially shape the settlement system. In addition, it exercises great influence over the budgetary position of municipalities, transportation costs, and gaps in social services.

A major consequence of the present absence of explicit federal policies for settlements is that these indirect impacts proceed on an uncoordinated and often contradictory basis. Since the provinces also tend to relegate settlement policies to a secondary importance, federal-provincial (and by extension, municipal) policies tend to aggravate this somewhat chaotic situation. It was precisely to remedy this lack of coherent, consistent interventions that the federal urban ministry was created. Its demise suggests that the task was unattainable.

As a result, the settlement policy milieu in Canada consists of a wide variety of policy initiatives by many existing and newly emerging participants, but it lacks a clearly defined direction at this time.

3.3 Settlement Policy Research in Canada

3.3.1 A Catalogue of Canadian Research on Settlements in the 1970s

In the summer of 1981, Canada Mortgage and Housing Corporation (CMHC) sponsored a research project designed to identify and catalogue research in the area of housing and related fields. While the study has not been published, it can be used to identify Canadian researchers and the major fields of research in which they have been engaged.

We present in Appendix Table 3.3-1 the subject matter classification scheme that was used. This scheme was based primarily on the organization of research in CMHC at that time. The primary interest in the project was on categories 1.0, housing, and 2.0, capital markets, so that the focus was oriented towards economic and geographic research.

As a result, we have included two tables. The first, Appendix Table 3.3-2 covers work by researchers primarily involved in subject areas 1.0 and 2.0. The second, Appendix Table 3.3-3 covers researchers not primarily emphasizing those areas. We hasten to add that this second table is much less comprehensive than the first.

In these tables, we have employed only a 2-digit code for classifying subject matters as that seems adequate for our purposes.

It can be seen from these tables that Canadian research on housing and related issues has involved a large number of scholars. The CMHC report was impressed with the quality of this research as well as its quantity. No simple summary of such a large oeuvre is possible, but it seems clear that Canadian research on settlement issues is relatively comprehensive and sophisticated.

3.3.2 Research on Settlement Policies

Much less work has been done in Canada in the applied area of settlement policy evaluation. In large part this is due to the very fragmented state of settlement policies, as discussed in part 3.2. As well, the general state of evaluation research remains rather primitive.

We felt that the absence of published materials might not reflect the true state of such work, as there is a tendency by governments to conduct significant amounts of policy research in-house, much of which never gets published.

We thus wrote to each of the ten provinces requesting information on the state of their research in this area. Most provinces replied, and the majority indicated that no such research was being carried on. Several stressed that they had no general settlement policies at all, and merely reacted to particular settlement concerns as they arose. Several provinces have begun to wrestle with the formulation of more comprehensive settlement policies (Prince Edward Island, Nova Scotia, New Brunswick, Newfoundland, Quebec, Saskatchewan and British Columbia); many of

these triggered by the efforts of the federal government's former Department of Regional Economic Expansion. The major thrust has been to deal with poorer rural regions of the provinces by stressing local revitalization. Little effort seems to have beeen expended on larger metropolitan areas with the exception of Halifax and Montreal, and Ontario's Downtown Core Program.

Well-defined settlement strategies have recently been formulated in the West. In 1980 Alberta passed an ambitious new planning act, and British Columbia has, also recently, begun to investigate important areas of settlement concern.

As a result of the limited and recent role of settlement policy as a generic issue, the absence of evaluative research at the provincial level is hardly surprising.

At the federal level, under the Department of Regional Economic Expansion (DREE), several major policy reviews were undertaken. In general, these evaluations tended to be more desriptive than analytical. In other words, there was only a limited attempt to assess the <u>impact</u> of policies, and most attention was directed to measuring and assessing the policy <u>effort</u>. These reviews have led to major changes in policy direction, but the evaluative framework has been far from comprehensive.

Canada Mortgage and Housing Corporation has evolved a much more evaluation-oriented policy approach. There have been reasonably comprehensive and rigorous assessments of current policy approaches such as cooperative housing, social housing, aid to builders, etc. This research has been conducted both by external

consultants and in-house. The Quality of this evaluative research is quite high - it far exceeds all other settlement policy evaluations with which we are acquainted.

A major "external" review of regional policy was undertaken by the Economic Council of Canada in 1977. This study did attempt to approach regional economic concerns in a relatively comprehensive but traditional fashion, surveying first the theoretical comprehensive but traditional fashion, surveying first the theoretical literature and then the policy performance. It examined, perhaps for the first time, short-term economic policy impacts as well as longer-term consequences. Although its findings were not without controversy, it did serve a useful evaluative purpose by taking a view broader than the previous emphasis on narrowly defined programs.

Much of the academic research on regional policy has stressed particular programs, particularly in the field of locational incentives to industry. These findings were almost universally critical of the various incentive programs. However, little research has been undertaken to evaluate the larger programs of instrastructure assistance, etc. In part this is because that area of policy has multiple objectives and the impact can be traced only after a lengthy gestation period.

3.4 Canadian Research on the Economic Impact of Settlement Policies

The fact that Canada's settlement policies cover so diverse a range of concerns, actors and approaches means that we shall have to limit ourselves to the most important of these policy areas. We have decided to stress housing and regional development, which correspond to categories (IV(a)(ii)) and (I(d)(ii)) in our framework (Table 1.2). We also shall analyse the role of energy pricing.

Certain aspects of Canada's policy milieu strongly influence the way in which these policies are formulated as well as their impact. In the area of housing, for example, some provinces may assist homeowners, cities may provide shelter allowances for the elderly, while the federal government may subsidize social housing. The result can be widely differing policies and significantly different allocations of resources to the housing sector among communities and between provinces.

In the area of regional development, provinces almost invariably compete with each other in trying to attract (or retain) industry, or in trying to deter "unproductive" interprovincial migration. Federal ministries may themselves enhance conflict, such as when regional authorities provide incentives for industries to locate in remote areas, while industry authorities encourage core location near major markets to accelerate national growth.

Finally, energy pricing policy has set consuming against producing provinces, oil against gas and hydro-electric interests, and Ottawa against the producing provinces and firms.

Thus, the federal system of government in Canada creates a diversity of circumstances and a mélange of policies all of which make research on policy impacts a rather intimidating enterprise, even when confined to a limited number of policy issues.

3.4.1 Research on the Economic Impact of Canadian Housing Policy

The importance of housing policy in the Canadian economy was described in a recent report prepared for the ECE conference in Prague held in May, 1982.[5] The report pointed out that housing continues to play a key, albeit declining role in GNP.

For purposes of our study, this report is of significance because it demonstrates why housing policy continues to be an important potential instrument of short-term stabilization policy.

The reasons given include:

1) The ability to manipulate annual production without seriously affecting the annual flow of services provided by the product, or its prices, because a large stock of the product already exists;
2) The widespread consumption of the product and its susceptibility to local manipulation;
3) The use of a comparatively high degree of labour in the creation of the product;

4) The ability to use domestic materials in the creation of the product;
5) The creation of a product which has spin-off effects in the general economy.

Two broad policy considerations are implied in these arguments. The first pertains to the linkage characteristics of housing. Because of the technology of the housing sector, it has strong links to other sectors and to patterns of input use that make it extremely important as a stabilization instrument.

The second consideration has to do with policy leverage. Housing has traditionally triggered significant economic expansion by means of relatively small, highly levered public actions. By examining each of these issues in turn, we are able to assess most of the relevant research in the housing field.

(i) Linkage

The ideal method for establishing short-run linkages between one sector of the economy and the rest is through an input-output analysis. Unfortunately, the residential construction sector in the current input-output tables (1977) is very weak, being derived primarily from a 1969 survey of single detached units, which account for only one-half of total housing starts today. The increasingly important renovation activity is treated even less satisfactorily.

Those imperfect data, summarized in Table 3.3, suggest that in 1977 an expenditure of 1 million dollars on residential

TABLE 3.3

EFFECT OF A $1,000,000 EXPENDITURE ON RESIDENTIAL CONSTRUCTION

1977 INPUT-OUTPUT MODEL

	SECTOR	TOTAL DOMESTIC OUTPUT (000$)
1	AGRICULTURE	3.3
2	FORESTRY	25.1
3	FISHING, HUNTING & TRAPPING	0.1
4	METAL MINES	4.1
5	MINERAL FUELS	13.9
6	NON-METAL MINES & QUARRIES	5.2
7	SERVICES INCIDENTAL TO MINING	1.1
8	FOOD & BEVERAGE INDUSTRIES	5.6
9	TOBACCO PRODUCTS INDUSTRIES	-
10	RUBBER & PLASTICS PRODUCTS IND.	14.8
11	LEATHER INDUSTRIES	0.3
12	TEXTILE INDUSTRIES	11.2
13	KNITTING MILLS	0.2
14	CLOTHING INDUSTRIES	0.6
15	WOOD INDUSTRIES	130.4
16	FURNITURE & FIXTURE INDUSTRIES	2.1
17	PAPER & ALLIED INDUSTRIES	22.4
18	PRINTING & PUBLISHING	0.6
19	PRIMARY METAL INDUSTRIES	50.6
20	METAL FABRICATING INDUSTRIES	112.0
21	MACHINERY INDUSTRIES	9.8
22	TRANSPORTATION EQUIPMENT IND.	7.9
23	ELECTRICAL PRODUCTS INDUSTRIES	18.5
24	NON-METALLIC MINERAL PROD. IND.	67.8
25	PETROLEUM & COAL PRODUCTS IND.	20.2
26	CHEMICAL & CHEMICAL PROD. IND.	20.8
27	MISC. MANUFACTURING INDUSTRIES	6.8
28	CONSTRUCTION INDUSTRY	1007.8
29	TRANSPORTATION & STORAGE	46.9
30	COMMUNICATION	10.7
31	ELEC. POWER, GAS, OTHER UTILITIES	9.3
32	WHOLESALE TRADE	66.9
33	RETAIL TRADE	16.6
34	OWNER OCCUPIED DWELLINGS	-
35	OTHER FINANCE, INS. & REAL ESTATE	41.1
36	EDUCATION & HEALTH SERVICES	-

TABLE 3.3

EFFECT OF A $1,000,000 EXPENDITURE ON RESIDENTIAL CONSTRUCTION

1977 INPUT-OUTPUT MODEL

	SECTOR	TOTAL DOMESTIC OUTPUT (000$)
37	AMUSEMENT & RECREATION SERVICES	0.6
38	SERVICES TO BUSINESS MANAGEMENT	3.4
39	ACCOMMODATION AND FOOD SERVICES	3.9
40	OTHER PERSONAL & MISC. SERVICES	1.2
41	TRANSPORTATION MARGINS	29.2
42	OPERATING, OFFICE, CAR & FOOD	41.6
43	TRAVEL & ADVERTISING, PROMOTION	18.6
	TOTAL	1890.1

construction would generate 1.89 million dollars in total domestic output, with many other sectors significantly affected.

In terms of employment, there will be almost 19 man-years of direct employment generated by the 1 million dollar expenditure, and another 16 man-years of indirect employment generated by the impact on linked industries.[6] These estimates are likely to be understated, since they do not take into account forward linkages, which entail subsequent purchases by homebuyers and renters of such things as furniture and appliances. Clayton estimates this will induce a further 28 man-years of employment. For a $1 million expenditure, it is therefore possible on average to generate close to 65 new jobs.

It is further estimated that for renovation activity, the employment generated is 18% higher. It should be added, however, that a large part of this renovation would be done by the owner-occupier for himself. Also it probably wouldn't have as much of the spin-off that Clayton estimates for furniture and appliances.

Several further spatial characteristics of these linkage relationships should be noted. First, most of the direct employment would be in the location where the expenditure is made. Spending leakages would occur for certain materials, such as lumber (B.C., for example) and furniture (Ontario and Quebec). But the total local impact of construction spending would appear to be relatively high (80% in Ontario). Given high rates of regional unemployment, and underemployment of resources in the construction industry, this evidence would seem to call

for a major housing policy. The question to be answered, of course, is at what cost in terms of government expenditures?

(ii) Leverage

The cost to government of a housing policy will depend on the leverage such a policy can exert on construction activity. Until the mid-1960s, the Canadian government was able to exert a great deal of influence on the housing market through its direct lending policies. By altering the supply of money to developers, particularly with low down payment requirements, CMHC was able to determine the overall level of new construction with little explicit subsidy.

From the mid-1960s to the late 1970s, CMHC proceeded to integrate the mortgage market more completely into the private financial system, freeing interest rates on mortgages, and allowing banks to participate. This had the effect of loosening the Corporation's control over construction activity. As a result, in order to influence that sector, it has had to provide much deeper subsidies, such as under the Federal Housing Action Program, and the Multiple Unit Residential Building Program.

Needless to say, deep subsidy programs are very costly to the public sector, ranging from $1,200 to $3,000 per unit per year. Moreover, since many of the subsidized units would have been built without the subsidy, the social cost is also rather high. Currently, the federal government provides grants of $3,000 per unit for all buyers of new houses as well as first-time buyers of existing units. These grants are not restricted by the income of

the applicant. At the same time, CMHC offers grants of up to $3,000 per unit to help households renovate their homes, with grants scaled to the income of the applicant.

The other major program for stimulating new construction activity is section 56.1 of the National Housing Act. This covers grants to cooperatives, non-profit entities or provincial government agencies. The effect is to bring interest payments down to 2% from current (October 1982) market rates of about 15%. On a typical apartment unit priced at $45,000, the subsidy in the first year would be $7,200. There is no formal income test for tenants, although one-quarter are expected to be poor. The substantial subsidies in this program have led to a significant queue of applicants, so that it has been necessary to severely ration the 27,500 units assisted each year. At present, these units constitute some 20% of all starts. CMHC has begun a major evaluation of this program to see how it might be improved.

If we recognize as well the rapid proliferation of provincial programs, the extent to which housing activity has become dependent on direct public subsidies is clearly seen. It is estimated that one in three starts now receives some form of subsidy.

Recent housing policies have had to confront the problem of homeowners facing high interest rates. Yet, as far as we could determine, little research has been undertaken to establish the likely impact of interest reduction policies directly on the housing market, and indirectly, on the economy as a whole. The motivation would appear to be largely, and understandably

political. Three provinces (Saskatchewan, Alberta and British Columbia) facing or emerging from elections have all entered the field.

The federal government has proposed to allow investors to buy price-linked mortgages, paying tax only on the "real" interest earned. This is designed to protect investors from being taxed on the inflationary premium on their investment. From a research perspective, this proposal is interesting because there was extensive analysis of this proposal in advance, and it is being examined by a special combined private sector-public sector task force. This opening up of policy development to ex ante public scrutiny is highly innovative in Canada, although some critics argue that the delay increases uncertainty and defers investment at a time when economic stimulation is urgently required.

In general, evaluation research for housing policy at all levels of government has been expanding. In direct program evaluation terms, increasing stress on public policy efficiency, effectiveness and equity has created pressures to justify the various efforts. Less research attention has thus far been paid to the indirect impact on the macroeconomy. In part this is no doubt due to the theoretical and data difficulties inherent in measuring these impacts.

One interesting recent development was the attempt by the Province of Ontario to evaluate its policy of rent controls. The researchers took into account lost tax revenue and unemployment, and concluded that the cost of rent controls far exceeded the

cost of a comparable shelter allowance program and the benefits and costs of the program were inequitably distributed.[7]

Canadian experience points to several promising research avenues for studying the economic impact of housing. An essential first step is to develop a better data base, preferably within an input-output context. Improvements in the Canadian sctor models of housing are also required. Recent changes in mortgage markets, including instrumentalities and the role of institutions, have been so significant that older partial models reflecting now obsolete structures are no longer appropriate. Finally and most obviously, we would hope that evaluation methods be developed that are capable of assessing the full macroeconomic impact of housing policies, particularly as pertains to their effect on inflation and unemployment.

3.4.2 Research on the Economic Impact of Regional Development Policies in Canada

Given the diversity in Canada it is inevitable that there be a dispersion in employment and income levels and growth patterns among the regions. Less easily explained is the persistence of such disparities for a very long time. The issue had been examined by several academic scholars during the early 1960s, but it was primarily as a result of the publicity given to the extensive descriptive research of the Economic Council in the mid-1960s that the federal government began to erect an institutional mechanism to coordinate its hitherto rather ad hoc responses to the problem. While federal activities of necessity had always taken into account regional considerations, the

creation of the Department of Regional Economic Expansion (DREE) made the economic development of poorer regions an explicit goal of federal policy, with the power and instruments to initiate significant changes.

By its very nature, regional policy is an attempt to reallocate economic activity towards regions that would otherwise be unattractive to that activity. The recent study by the Economic Council of Canada, entitled Living Together, argues that the reasons these regions are unattractive include:

> "the roles of human capital, demand, technology gaps, urbanization..."[8]

The view of the Council, and of DREE, is that each region has a set of activities in which it has, or can have, a comparative advantage. The regional policy challenge is to identify this sphere of activity and to promote its development. While this approach is conceptually sound, and very much in line with traditional economic thinking, the actual work of selecting areas of comparative advantage has proven to be much more difficult than was thought.[9]

Several practical difficulties have confronted policymakers:

a) Comparative advantages are not so easily identified in a multi-product, multi-region, open economy.

b) Even when identified, politics and ideology often confound a "rational" allocation of activities. Simply stated, all regions prefer manufacturing over most primary activity for both real and prestige purposes.

c) Comparative advantages change rapidly in a turbulent environment and locking into one specialty might prove to be disastrous.

d) Certain comparative advantages can be created by public policy, particularly in the realm of high-technology, footloose industries.

While these issues have been analysed in the literature of international trade, very much less attention has been paid to them in the regional field. Little research appears to have been done to amend the somewhat simplistic conceptions suggested by the notion of planning to exploit comparative advantages.

In any event, regional development policy has at the same time drawn on a number of other theoretical conceptions, some directly contradicting the traditional view. For example, the concept of a growth pole based on Myrdal's disequilibrium model of development has been a strand in Canadian regional policy for a long time. Since this conflicts with the essential tenets of neoclassical models, one would expect a substantial research effort to enable policymakers to decide between the two. Regrettably, in Canada, as elsewhere, the state-of-the-art in regional research remains inconclusive.

If Canadian approaches to regional policy as a <u>secular</u> transformation of backward regions' development paths have faced the same uncertainty as such policies elsewhere due to inconclusive research, the Economic Council has been rather innovative in adding a second dimension to regional policy

concerns, and that is the matter of short-run regional instability - a matter of particular concern to this study.

It argued that this problem - of greater cyclical instability in depressed regions - was serious, yet was susceptible to effective policy. Fiscal policy, by both the federal and provincial governments could, it argued, mitigate the problem.

During periods of rapid expansion and low national unemployment, directing expenditures to regions with the highest unemployment rates would be effective because their research indicated that leakages of such spending into the regions with tight labour markets was found to be modest. Indeed, certain regionally differentiated housing policies had been introduced in Canada in 1963 and in 1969, varying capital consumption allowance by region. The precise effects do not appear to have been evaluated although they are generally felt to have been positive.

Apart from minor problems with the quality of the ECC evidence on leakages, the research is important for it provides a direct link between regional policy and national stabilization. It intimates that, within limits, the aggregate unemployment rate can be reduced with little inflationary pressure by targetting expansionary fiscal policies on the weakest regional economies. Conversely, aggregate inflation can be checked with little added unemployment by restraining aggregate demand in the most inflation-prone regional economies.[10]

But adding a short-term cyclical focus to regional policy creates serious difficulties for policymakers. The typical

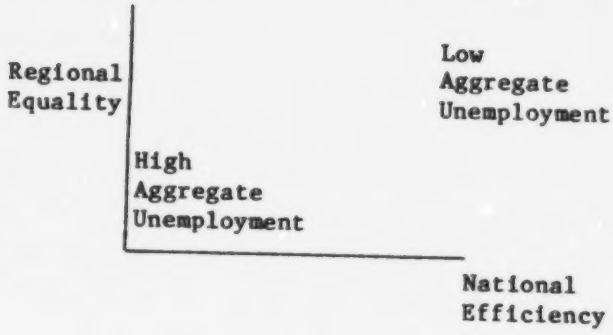
contracyclical tools are very difficult to fine-tune on an aggregate, macroeconomic basis. At a micro, industrial/regional level, they are even less tractable. There is a real possibility that expansionary fiscal policy will augment the demand for output from those industries in the region that do not have comparative advantages. Conversely, supply policies that favour the expansion of activities in which the region has a comparative advantage might find that those precise activities have high import leakages. Thus, the targetting of demand (short-run) and supply (long-run) policies on the same activities might be a more challenging task than has hitherto been recognized. Certainly substantial research into this issue would be most instructive.

A second difficulty arises during periods of general unemployment, such as at present. In these circumstances, excess capacity in the more developed regions would tend to give them absolute and comparataive advantages in most lines of industrial activity. Assisting underdeveloped regions would entail an even greater efficiency loss in the name of regional equality.

As illustrated in Fig. 3.1, during periods of low overall unemployment, it is possible to increase regional equality through regional policies with only a slight national efficiency loss. At present, pursuing that same degree of regional equality might require a much greater decline in national efficiency.[11]

Fig. 3.1

Trade-Offs Between Regional Equality and National Efficiency



The preceding discussion of trade-offs strongly suggests that regional development policies will have a smaller short-term payoff during cyclical troughs. Since the disadvantaged regions will still have the highest unemployment rates, various contracyclical policies for those regions will be called for. Certain of them, such as infrastructure and labour retraining can have positive short and long-term effects on the region.

Nevertheless, for most regions, the primary concern is their long-term development and regional policy should stress supply issues. Funds for such policies are best allocated in the framework of a long-term planning cycle. The cyclical concerns should be addressed out of a different, short-term budgetary and planning framework. There is little intuitive reason, and little research evidence other than the ECC's judgment, to suggest we are likely to be able to combine both these concerns into a single policy conception.[12]

The current policy dilemma makes even this division of labour problematical. If Canada is, at present, in a cyclical trough, our previous discussion suggests we should not introduce regional development policies to cure regional unemployment, but that we should engage in regionally sensitized fiscal policies.

But underlying the cycle has been a dramatic decline in our long-term growth path starting in the early 1970s. Under these circumstances, perhaps a supply strategy is necessary. Certainly demand management has been significantly constrained during the current slump by the high rates of interest, and their effect on government debt charges. This has severely limited the ability of governments to incur short-term deficits to deal with cyclical unemployment. A fundamental research problem underlying this situation which plagues most countries today, is the absence of a definitive explanation for current economic difficulties. The lack of an explanation has made the selection of effective economic policies very difficult, which has in turn made the selection of appropriate regional policies virtually impossible.

In addition to the difficulties of moving between short and long-run regional policies, policymakers must confront traditional spatial policy problems. They must choose between industrial incentives and infrastructure; between aiding new as opposed to existing industries; between focussing on growth centres and the rural periphery.

In Canada, recent experience has suggested some resolution of these issues, based on varying efforts at research and policy evaluation.

a) Reallocation of Regional Policies from Supply to Demand Management

The fact is that in Canada, explicit regional policies take a rather modest, and declining share of government expenditures. In 1982-83, DREE's budget was some $700 million, and this constituted a mere 1% of the federal government's budget.[13] Given that must of this amount was contractually committed under General Development Agreements, the scope for significantly diverting regional policy funds to augment stabilization policy is virtually nil. Reallocation of budgets from other programs of course remains a possibility, but the relatively low profile of regional policy suggests it would not be likely.

b) Infrastructure vs. Subsidies to Firms

Stimulating either of these activities will increase employment in the short run. The differential employment impact cannot be determined a priori. Recent policy has shifted to firm assistance despite much criticism of it by researchers.[14] The absence of solid research on the impact of infrstructure programs makes a resolution of this important debate impossible.

c) Existing vs. New Firms

The current slump has featured high rates of bankruptcies and foreclosures, in prosperous as well as underdeveloped regions. It is difficult to determine the social cost of business failures, but it would appear that keeping them in operation would be less costly than creating entirely new plants. This may

not be true for the private costs, as they will depend on tax laws, etc.

The real difficulty with trying to assist existing firms lies in determining when and for whom to provide assistance. The potential demand is, of course, extremely high and as a result, assistance tends to come on an ad hoc basis, primarily to large, visible and influential firms.

To reduce labour costs, and avoid shutdowns, many firms with government assistance have established short work weeks. In addition, intermittent periods of employment, sufficiently long to permit workers to establish claims on federal unemployment insurance funds, are now increasingly frequent. Thus, automatic stabilizers have been directed by these manipulations into serving short-term regional stabilization needs.

d) Growth Poles vs. Peripheries

DREE has long pursued a growth pole (growth centre) strategy, although it has been modified and amended rather liberally. As late as 1981, this strategy was credited with encouraging significant growth in Nova Scotia and New Brunswick.

Questions have been raised about whether the growth in the pole really "trickled down" into the periphery, particularly in the case of Montreal and its periphery. There is evidence that Canadians have moved out of the poles into the periphery during the current recession. This is likely to create additional

pressures to focus regional policy directly on poorer peripheral areas.

The current economic situation has clearly raised a host of new research issues. Coupled to that is the fact that to date, very little systematic research has been undertaken over the past decade to evaluate the economic impact of DREE's programs.[15] The Department collects and disseminates many statistics on their programs, and particularly on their estimates of jobs created. But these tend to disregard substitution effects of public for private funds in estimating the incremental effect. Economists also find that industrial grants have a capital bias, leading to capital-intensive techniques in areas of high unemployment.

A recent Departmental review recognized the connection between regional policy and industrial development, leading to the reorganization of these policy areas. DREE's program agencies were merged with those of the Department of Industry to form the Department of Regional Industrial Expansion, and its policy unit was merged with the Ministry of State for Economic Development to form the Ministry of State for Economic and Regional Development.

These organizational changes followed a major policy statement on development efforts issued with the federal budget in the fall of 1981, which argued that major resource megaprojects would be the leading edge of development in virtually all Canadian regions. The recent reversal in oil price trends and in resource prices generally have led to the cancellation of many of those projects, suggesting that perhaps they were conceived on the basis of inadequate research.[16]

In any event, federal economic policy in the regions continues to stress long-run supply concerns. The whole question of short-run exigencies in the regions, and the possibility of switching focus or adding a new dimension in periods of economic stress remains to be addressed. This in turn will necessarily require a rather careful research formulation of the interaction between short and long-run concerns.

3.4.3 Research on the Economic Impact of Energy Policy in Canada

For a variety of reasons, energy has come to be viewed as a "settlement" issue. This is probably because of the expected significant impact of energy conditions on virtually all other settlement issues, such as the cost of housing, transportation and hence land use patterns, costs of production and hence the regional location of firms, and indeed, the direct impact of new energy projects on the economic development of energy-rich regions.

Many of these longer-run issues were discussed at the ECE conference in Gävle, Sweden in June, 1982. The Canadian submission to that conference reviews Canadian activity in this field, including the important steps that have been taken on the one hand to encourage energy exploration and production, and on the other to reduce consumption of oil by encouraging alternative fuels (natural gas especially) and conservation, as well as ongoing research in the energy field.

One dimension of Canadian energy policy was expected to play a central role in regional policy. The availability of energy (and

other resources) was viewed as the vehicle by which the various regions of Canada might realize more promising economic development. Large megaprojects in each of the regions were either being planned or underway. The philosophy and general strategy for this integration of energy policy and regional policy were set out in the document Economic Development for Canada in the 1980s that accompanied the federal government's budget in November 1981. This whole conception was critically evaluated by several reserachers.[17]

In any event, high interest rates, declining world prices of energy, and exploding government deficits during 1982 have led to the cancellation of virtually all megaprojects, and severe economic stress in many localities and regions that had been gearing up to accommodate this development strategy. At the present time, these retrenchments appear to be longer-term in nature than a mere cyclical pause, although the impact on the current recession of these cutbacks has been immense.

Regrettably, there has been little other consideration given to the cyclical impact of energy policy. One aspect of the Ottawa-Alberta oil pricing agreement of 1981 was a steep series of oil price increases towards the world price. This was necessary because Canada's initial response to the post-1973 world price surge was to keep domestic prices low. In part low prices were felt to be necessary to avoid devastating effects on the oil-using regions of central Canada. The producing provinces in the West were increasingly hostile to having to pay for this subsidy by foregoing economic rents on this valuable resource but eventually came to a compromise agreement.

The effect, however, of rapid movement towards world prices in an inflationary recession has been rather damaging. For oil price increases have exceeded virtually all other costs, inducing cost-push pressures that increase final prices and tend to reduce output further, especially in energy-intensive industries.

By way of contrast, the conservation policy may have improved the employment situation.[18] By stressing insulation, a rather labour-intensive activity has grown up in Canada that is able to employ relatively unskilled workers.

Finally, there is a budgetary dimension to the impact of energy policy. For the vehicle used to accelerate oil price increases has been taxes. This means that government revenue declines occasioned by the current steep recession have been moderated, and that crowding-out in capital markets due to government borrowing has also been reduced. To measure these various effects, the Department of Energy, Mines and Resources has developed an energy sector to be included in macroeconometric models. While much of the research conducted with this tool has not yet entered the public domain, it is likely that this will be the case in the future, and that research on this topic will be accelerated.

3.5 Canadian Research on the Impact of Economic Policies on Settlements

Economic research in Canada particularly with regard to macroeconomic policy is at least formally more advanced than research on settlements. Sophisticated macroeconometric models

of the Canadian economy have been in place for several decades and play a key role both in policy development and in policy evaluation.

Because of the lower priority assigned to settlement concerns by those engaged in macroeconomic policy, the spatial impact of those policies has received less attention. Nevertheless, the last decade has seen some attempts, particularly by DREE and the Economic Council, to inject at least regional economic impacts into the national economic policy debate.

3.5.1 Regionalizing Macroeconometric Models

The most formal technique for measuring regional impacts has involved the disaggregation of macroeconometric models into regional subcomponents.

Examples of such models are CANDIDE R, used by the former Department of Regional Economic Expansion (DREE), FOCUS-PRISM, a national-provincial model developed and maintained by the Institute for Policy Analysis, University of Toronto, and AERIC, a national-provincial short-term forecasting model built by the Conference Board of Canada. In addition, the Conference Board has recently produced a Medium Term Forecasting Model to replace AERIC. With the reorganization of DREE, and probably also due to the highly complex structure of CANDIDE R, research on this model was recently abandoned.

The approach followed in both the FOCUS-PRISM and AERIC models in terms of the integration of the national and provincial

economies, is typically a "top-down" one, whereby variables are determined in aggregate and then broken down into their provincial components. This is in contrast with the so-called "bottom-up" approach to interregional model building, whereby individual regional models are built separately and then linked together in a national model. The "bottom-up" approach probably represents the "first-best" solution to regional econometric modelling, but the present stage of data development and the considerable lack of theoretical and econometric experience in the field, makes such a solution practically infeasible at the present time. To the best of our knowledge, no such interregional, "bottom-up" model presently exists in Canada.

Given the similarities between FOCUS-PRISM and AERIC, only a brief overview of the former will be provided here. In the FOCUS-PRISM project[19], the provincial model, PRISM (Provincial-Industrial Satellite Model), is operated as an adjunct to the FOCUS national macroeconometric model. FOCUS determines results for various "national" markets; PRISM then works from these national aggregates to break out detail for industrial production and employment, and provincial production, employment and income. Whereas FOCUS is a medium-sized model, with slightly more than 500 variables (of which roughly 300 are endogenous), PRISM is a large model, with more than 2,000 variables of which 1,300 are endogenous. Nevertheless, for the reasons mentioned above the FOCUS structure is far more complex than that of PRISM. It should also be noted that while FOCUS is a quarterly model, PRISM is annual; however, the FOCUS series are automatically annualized to serve as an input in PRISM.

The very simple structure of existing Canadian national-regional models, with, however, their considerable degree of aggregation, obviously limits the ability of those models, at the present stage, to provide detailed and significant conclusions regarding the regional impact of national policies. Impacts at a lower level of disaggregation, such as metropolitan or local, are not possible. Nor are impacts on most of our settlement concerns, with the exception of housing which plays a unique role in stabilization policy and which therefore tends to have an explicit role in most macroeconometric models. We have already reviewed this issue in section 3.4.1 and explore it further in section 3.5.4.

Because there are obvious and important impacts of economic policies on settlement issues, Canadian researchers interested in identifying and measuring them have typically had to resort to the second and third levels of research discussed in section 2.1. No systematic body of literature exists in this area, but several studies have focussed on certain aspects of relevance to us.

In particular, research has focussed on the impact of fiscal and monetary policies on regional development and housing concerns.[20]

3.5.2 The Impact of Fiscal Policy on Regional Development

Research on the impact of fiscal policy on regions in Canada has been due to concern over the differential cyclical performance of Canadian provinces, measured both by income and unemployment disparities.[21]

Throughout the postwar period, this regionally differentiated cyclical performance has not been the major concern of federal fiscal and monetary policy. Rather, stabilization policy has primarily addressed national indicators such as national unemployment and national inflation. The important analytical question is: has the national focus alleviated or exacerbated regional disparities in cyclical performance?

Research indicates[22] that the anti-inflation fiscal policies of the late 1960s were particularly damaging for the economies of Quebec and the Maritimes. At the time these policies were implemented, the provinces were experiencing high unemployment rates and stagnant aggregate demand, while prices were rising moderately. There was in these provinces a clear need for fiscal stimulus rather than for fiscal restraint. The national policies that were followed restricted the potential for growth, both in the short and the long run, in these provinces, widening existing income and employment disparities, without any significant improvement in the behaviour of the major national price indicators.

Precise quantification of these spatial effects of federal fiscal policy has not been possible due not only to the data and methodological problems already noted, but also because of the openness of Canada's regional economies. In particular, regional price effects have been difficult to trace. The less than perfect mobility of labour has permitted some crude estimates of the regional employment and output effects of federal fiscal policies.

Thus, the Economic Council estimated the impact of the relatively easy fiscal conditions of the mid-1960s and early 1970s on provincial output. A counterfactual analysis covering the period 1965-73 shows that Ontario reveals the greatest sensitivity to changes in the course of fiscal policy, being the province which benefits the most during periods of fiscal ease, but also the one which suffers the most, in terms of output forgone, in periods of fiscal restraint. The Prairies and Quebec rank second in this respect, with the Atlantic Provinces showing the least output elasticity relative to the stance of federal fiscal policy.[23]

These findings are in no way in contradiction with the observable fact that a policy of fiscal restraint is particularly damaging for the low-income provinces, as Quebec and the Maritimes.

Indeed, these provinces have historically experienced rates of unemployment which, as a result of the particular structure of their economies and, in the case of Quebec, also as a result of cultural factors which limit the mobility of the labour force, are well above the national average. (See Table 3.4)

Therefore, even if these provinces show an overall or moderate sensitivity, in terms of output foregone, to a policy of fiscal restraint, that loss is imposed on economies whose output is already low (compared to potential). The severity of the social and economic disruption imposed on those provinces by a federal policy of fiscal restraint is thus likely to be much more serious than, say, in Ontario, where the high output elasticity to changes in the course of fiscal policy is balanced by its higher than average rate of factor utilization.

TABLE 3.4

Average Unemployment Rates (%)

	1953-75
Maritimes	8.6
Quebec	7.0
Ontario	3.9
Prairies	3.3
B.C.	6.0
Canada	5.3

Source: ECC, op. cit., p. 109.

The differential impact produced at the regional level by federal fiscal policies has raised in Canada the question of the feasibility of regionalizing such a policy. This would involve the use of a mix of policy instruments capable of achieving spatialy divergent regional economic goals.

One first and indirect approach to the regionalization of federal fiscal policy would involve the use of a common set of fiscal instruments applied with uniform intensity across the country - but instruments whose impacts are known to be different in different regions. Even though conclusive empirical evidence is missing in this respect, one can reasonably expect that tax and expenditure multipliers will differ across regions reflecting different economic structures and income levels. One recent study[24] suggests that the economy of Quebec ranks first in terms

of output elasticity with respect to changes in federal non-wage current expenditures.

A detailed knowledge of provincial output elasticities, and multiplier effects with respect to different federal fiscal policy instruments, would therefore enable the policymaker to choose an appropriate mix of instruments which - even if applied uniformly across the country - would be capable of discrimination in terms of their desired regional effects. Thus, and given the above considerations, a policy of fiscal expansion, intended to discriminate in favour of, say, Quebec, would rely on instruments such as the federal rate of personal income taxation and/or the level of federal non-wage current expenditures. A national policy of fiscal restraint, on the other hand, should avoid those instruments if Quebec is to be protected.

A direct, and more effective approach to the regionalization of federal fiscal policy would involve the use of different instruments, or the same instrument with different intensities, in different regions. In this case, for example, an aggregate demand deficiency in a particular province would be eliminated by direct federal action through, say, an increase in federal spending or a reduction in federal taxes in that particular province. Or, in the case of a policy undertaken at the national level the same instruments would be used across the country, but with different provincial intensities, in order to discriminate in favour of or against a particular province or set of provinces.

Basically, two sorts of objections have been raised concerning the feasibility of this approach.

First, it has been argued that the "leakages" or spillover effects caused by the openness of regional economies are likely to leave little, if any, of the fiscal stimulus in the province in which it originates, rendering the regionalization of fiscal policy virtually impossible.

In Canada, available evidence, though sketchy, does not support the "spillover hypothesis". It has been shown that, in general, more than 50% of the output effects generated by a fiscal stimulus in a particular province occurs in the province in which the stimulus originates. In the case of a tax reduction, for example, this proportion ranges from a low of 55% in Newfoundland to a high of 86% in Ontario. The same is true in the case of an expenditure increase with the proportion of total output effect occurring in the province where such an increase in expenditure takes place, ranging from 53% in Prince Edward Island to 88% in Ontario.[25]

A second, and probably more serious objection to a direct approach in the regionalization of federal fiscal policy, is a political one. Direct assistance by the federal government to a particular region will inevitably be viewed as "discriminatory". The politically most attractive form of discriminatory subsidy is usually the least visible.

Finally, it should be noted that in a federal country, the impact of the fiscal policy of the national government can be seriously

reduced by the action of provincial governments. This would be particularly true in the case of richer provinces which do not accept being discriminated against. Recent examples include competitive bidding for foreign-owned automobile plants.[26]

3.5.3 The Impact of Monetary Policy

The policy of monetary gradualism pursued by the Bank of Canada since 1975 has generated in recent years nominal interest rates which, judging by historical standards, reached record levels.

The regional impact of monetary policy in Canada is, however, much less apparent than in the case of fiscal policy. The reason is that the high mobility of financial capital and the efficiency of capital markets virtually preclude the emergence of significant interest rate differentials among regions. Nevertheless, it is safe to assume that the elasticity of investment of interest rates will differ among regions, given the differential industrial structures, differential opportunities for access to savings (domestic and foreign), differential age structure of capital and capital intensities in the production process.

Beyond that, the market structure or the degree of competitiveness may be a factor. A policy of high interest rates discriminates against small businesses because of their limited access to alternative sources of financing. Even though no data exists in Canada to support definitive conclusions, casual observation suggests that the bankruptcy rate among small businesses, in periods of high interest rates, as is presently

the situation in Canada, exceeds by far the bankruptcy rate among large corporations. If this is so, high interest rate policies would tend to reinforce the degree of monopoly of large corporations in local markets.

To the extent that small businesses are over-represented in low income regions compared to large corporations, stringent monetary policy will discriminate against those regions, widening existing gaps, in terms of income and development opportunities across the country.

3.5.4 The Impact of Wage and Price Controls

The apparent inability of traditional monetary and fiscal policy tools to significantly improve economic prospects has led many countries to impose or reimpose some form of wage and/or price controls. This has occurred despite the continuing debate over the efficacy of such controls. In Canada, evidence suggests that the period of controls from 1975 to 1978 saw some effective control over wages[29], but not prices.[30] The reasons for the weak results are well known: the availability of substitutes and the ease of circumvention. The costs, in terms of declining quality and increased transactions costs are also predictable.

By preventing prices from acting as sources of information and incentives, controls distort the pattern of economic activity. From a settlement perspective, price controls retard the pace of economic adjustment, tending to favour the status quo. This means that poorer regions with traditional industries will tend to be protected while regions with dynamic sectors will be

retarded from expanding. This distortion will, in the long run, prevent the transfer of resources from backward to advanced industries and exacerbate regional problems.

Canada's recent program involves a compulsory wage ceiling for federal government employees, limiting increases to 6% in the first year and 5% in the second. This has already had a "demonstration effect" on provincial governments, and it is hoped the pattern will spread to the private sector. If successful, these controls will tend to favour the more advanced firms by increasing the return on their capital, and restraining the power of labour unions which are relatively more concentrated in developed regions.

While no research was found that measures these effects, the fact that wage and price controls are so prevalent suggests a major assessment of their impact on settlements would be most timely.

3.5.5 Impacts on the Housing Market

Because of the heavy dependence of housing construction on capital market conditions, monetary policy in particular influences that sector perhaps more than any other. Indeed, residential construction historically has absorbed a disproportionate share of the impact of movements in interest rates and credit availability. As public sector involvement has gradually diminished over the last few years, this cyclical instability of housing has been exacerbated.

Research on this relationship has led it to be included in the various macroeconometric models, although the performance of the housing sector has not been very satisfactory.

It should be noted that the impact on regional housing markets has not received the same research attention. Because capital is mobile, it is assumed that the same credit conditions will hold throughout the nation. However, local housing markets always face unique circumstances and differing patterns of housing starts are typical across regions.

Pressures to protect the housing sector from cyclical instability induced in part by monetary policy have periodically arisen. The argument made is that such instability has a long-term social cost in that it leads to excessive entry and exit of firms and labour into the sector, and lessens the capacity of the industry to develop a longer-term planning horizon. This issue was studied by the Economic Council of Canada in 1974.[31] It found that the major cause of construction instability over the period 1950-70 was government stabilization policy, and that the consequences were inefficient production, lower profits, manpower inefficiency and poor industrial relations. Given the increased instability of housing over the past decade, a reassessment of these costs is warranted.

One problem with reducing this policy absorption role of construction, however, would be the transfer of that function to other sectors. While no research has been found that would try to identify where these impacts might show up, it may well be that those sectors would be less responsive, and hence our

ability to deal with national economic stability would be reduced.

Fiscal policy also impacts on housing primarily via changes in tax conditions. Incentives that direct capital towards investment in the business sector (increased depreciation or depletion allowance, investment tax credits, etc.) will necessarily divert resources from the housing sector. These will tend to add to the burden of adjustment in that sector.[32]

In addition, improving the level of benefits of certain automatic stabilization programs may impact on housing. For example, improving the benefits from unemployment insurance of raising the minimum wage will reduce the supply, expecially of unskilled, low income workers, to that sector. While there has been some debate among Canadian researchers as to the aggregate effect of these policies, the direction of the impact is at least quite clear.

Footnotes for Chapter 3

1. This process has been traced in the path-breaking research of Harold Innis. For a general introduction, see M. Watkins, "A Staples Theory of Economic Growth", Canadian Journal of Economics and Political Science, 29, 1963.

2. For an important contribution based on the use of input-output analysis to explore sectoral and spatial dimensions of development, see Richard E. Caves and Richard H. Holton, The Canadian Economy: Prospects and Retrospect, Harvard, 1959.

3. Richard M. Bird, Financing Canadian Government: A Quantitative Overview, Canadian Tax Foundation, 1979, pp. 109-111 (National Accounts Basis for 1977).

4. This section draws heavily on the report, "The Human Settlements Situation in Canada 1976-1982", prepared by the Policy Evaluation Division of the Canada Mortgage and Housing Corporation for the Committee on Housing, Building and Planning of the UN-ECE, May 1982.

5. Relationship Between Housing and the National Economy in Canada, presented to Seminar on the Relationship Between Housing and the National Economy, ECE Committee on Housing, Building and Planning, Prague (Czechoslovakia), May 10-14, 1982, p.3.

6. Clayton Research Associates Limited, Economic Impacts of Renovation Construction Activity, prepared for "Building Toward 2001", Community Renewal Branch, Ontario Ministry of Housing, November 1980.

7. "The Impact of Rent Review on Rental Housing in Ontario", Staff Research Report, Ministry of Municipal Affairs and Housing, Government of Ontario, July 1982. The inflationary impact of rent controls is also suggested in a recent paper by George Fallis and Lawrence B. Smith, "Uncontrolled Prices in a Controlled Market: The Case of Rent Controls", mimeo, August 1982.

8. Economic Council of Canada, Living Together: A Study of Regional Disparities, Ottawa, 1977, p. 211.

9. Wayne Thirsk, "Avenues of Long-Run Regional Economic Adjustment", in N.H. Lithwick, ed., Regional Economic Policy: The Canadian Experience, McGraw-Hill Ryerson, 1978, Ch. 2b.

10. For early analysis of the possibility of regionalizing fiscal policy, see Clarence L. Barber, "Theory of Fiscal Policy as Applied to a Province", for Ontario Commission of Taxation, 1967. Other studies include: T. Wilson, "The Provinces and Stabilization Policy", in OEC, Issues and Alternatives, op. cit., pp. 123-136; D. Auld, "Decentralizing Fiscal Policy", in the Fraser Institute, Canadian Confederation at the Crossroads, Vancouver, 1978, Ch. 7, pp. 269-283; and R. Boadway and F. Flatters, "the Efficiency Basis for Regional Employment Policy", Canadian Journal of Economics, 1981, XIV:1.

11. Evidence on the significance of such a trade-off has recently been provided by Rashid Aziz, David Butterfield and Atif Kubursi, "Regional Equity and Efficiency: Some Experiments for Canada", Project for Quantitative Studies in Economics and Population, McMaster University, June 1982.

12. A recent evaluation of attempts by government to influence business investment concludes that "the effectiveness of investment incentive tax policies in bringing about changes in the overall level of investment or the timing of investment expenditures is not at all apparent", F.J. Harman and J.A. Johnson, "An Examination of Government Tax Incentives for Business Investment in Canada", Canadian Tax Journal, XXVI, 6, November-December 1978, p. 704. See also Richard M. Bird, Tax Incentives for Investment: The State of the Art, Canadian Tax Foundation, November 1980: "...investment incentives are an extremely poor and possibly perverse way to encourage employment" (p.50).

13. See N.H. Lithwick, "Regional Policy: The Embodiment of Contradictions", in G. Bruce Doern, ed., How Ottawa Spends Your Tax Dollars, 1982, Lorimer, Toronto, 1982, Ch. 6.

14. A selected review of these criticisms is contained in N.H. Lithwick, ed., Regional Economic Policy, op. cit., Ch. 7.

15. A key study by W. Irwin Gillespie and Richard Kerr, "The Impact of Federal Regional Econoic Expansion Policies on the Distribution of Income in Canada" (ECC' Discussion Paper 85, May 1977) focuses only on distributional impacts.

16. Bruce Doern, "Energy Policy and the Megaprojects as an Instrument of Economic Development", Paper for the Carleton University School of Public Administration's Conference on The Limits of Government Intervention, October 6, 1982.

17. See Chapters 1 and 4 of How Ottawa Spends Your Tax Dollars, 1982, op. cit.

18. See, for example, "Evaluation of the Canadian Home Insulatioin Plan (CHIP) in New Brunswick", prepared for CMHC by the Atlantic Provinces Economic Council, September 1982.

19. D.P. Dougan, "Introduction to the PRISM Provincial-Industrial Satellite Model (Version PRISM 1)", Economic Policy Review, Vol. III (1981), No. 2, June 1981. At the present time, no published information is available on the provincial detail contained in AERIC. A technical report on AERIC, to be published by the Conference Board of Canada, is expected in mid-November 1982.

20. An excellent summary of the state of Canadian research on the spatial impact of stabilization policies, federal tax policies, manpower and immigration policies, and trade policies is provided in Yves Rabeau, "Regional and Urban Effects of National Socioeconomic Policies", Econobec, Montreal, 1979.

21. See, for example, ECC, Living Together, op. cit., Ch. 4.

22. Rabeau, op. cit.; Robert Lacroix and Y. Rabeau, "La Stabilisation Régionale: le Problème Canadien", Conseil Economique du Canada, 1978.

23. Living Together, op. cit., p. 103.

24. Dougan, op. cit.

25. Living Together, op. cit., pp. 104-107. See, however, Fred Lazar, "Regional Unemployment Rate Disparities in Canada: Some Possible Explanations", Canadian Journal of Economics, X, 1, February 1977, for evidence against the feasibility of regionalized stabilization policy (p. 126).

26. See Robin W. Boadway, Intergovernmental Transfers in Canada, Canadian Tax Foundation, 1980. See also J. Parizeau, "Federal-Provincial Economic Coordination" in L. Officer and L.B. Smith, eds., Canadian Economic Problems and Policies, McGraw-Hill, 1970.

27. M. Darby, "The Post-War Record: The U.S. Economic Stabilization Program of 1971-74", in M. Walker, ed., The Illustion of Wage and Price Control, The Fraser Institute, 1976.

28. R. Lipsey and M. Parkin, "Income Policy: A Reappraisal", in M. Parkin and M.T. Sommer, eds., Income Policy and Inflation, Manchester University Press, 1972.

    M. Parkin, "The Post-War Record: Wage and Price Controls: The Lessons from Britain", in M. Walker, ed., The Illusion of Wage and Price Control, The Fraser Institute, 1976.

29. F. Reid, "The Effect on the Rate of Wage Change in Canada", Canadian Journal of Economics, May 1979.

30. T.A. Wilson and G.V. Jump, "The Influence of the Anti-Inflation Program on Aggregate Wages and Prices: A Simulation Analysis", unpublished paper, Institute of Policy Analysis, University of Toronto.

31. Economic Council of Canada, Towards More Stable Growth in Construction, 1974.

32. However, present favourable tax treatment encourages investment in housing and has added to resources available to that sector. John Eossons, "The Effect of Inflation-Induced Hidden Wealth Taxes", in Canadian Tax Foundation, Proceedings of the Thirty-Second Tax Conference, November 24-26, 1980, Toronto, p. 18.

CHAPTER 4

LIMITATIONS OF CURRENT RESEARCH

4.1 Conceptual Difficulties

A central barrier to evolving a systematic program of research on the interrelationship between settlement and economic policy issues remains the very extensive domain that constitutes settlement concerns on the one hand, and the low priority assigned to such concerns by those primarily involved in economic policy-making.

Some improvement in the Canadian situation has occurred recently, primarily in relating regional policy concerns to longer-term economic development strategies. Both the megaproject development strategy of late 1981, and the reorganization in early 1982 of the industry and regional departments into integrated planning and program agencies joined economic and settlement concerns. It is too early to tell what impact these changes at the top will have on in-house government research. But the formal act of juxtaposing spatial and sectoral concerns may well trigger an outburst of private research on these issues.

The prospects for research on short-term economic impacts are less bright. The linkages, as we have seen, are less obvious and the theorectical foundations have barely been identified. It is hoped that this conference, by identifying various elements of these relationships in the participating countries, will contribute to establishing somewhat more systematic foundations.

4.2 Analytical Difficulties

The central analytical difficulty facing researchers in this area is the sheer complexity introduced into conventional research tools when settlement issues are to be explored. Disaggregation of large macroeconometric models to deal with regions has thus far proven to be unsatisfactory. The simplifications required often obscure the essential attributes of regions, such as their unique structural and spatial properties.

The alternative, of building from the bottom up - from local to regional to national models - is preferable in that it preserves the uniqueness of individual spatial entities. Cost considerations, political difficulties encountered in establishing functional regions which may not correspond to political boundaries, and data limitations (see below) all conspire to make this alternative an unlikely one.

Parital analyses have yielded insights, but these will have to involve much more careful specification and wider ranges of experience if they are to be more than merely descriptive.

4.3 Empirical Problems

Data, or the lack of appropriate data, continues to be the bane of research on settlement issues. Data published at the national level are often unsuited for less aggregative uses. Success has been achieved by Dr. Joel Diena and his Statistics Canada staff in regionalizing national data to provide us with provincial accounts. These have been of analytical use in analysing

short-run demand fluctuations by region. Unfortunately, the longer-run supply side end of regional economic analysis lacks a comparable data development effort. Resort to crude modifications of national data (input-output coefficients) is often the only means available to explore regional industrial structure. Regional growth models are forced to use similar production functions in each region, obscuring the very essence of regional differences.

At the sub-provincial level - especially metropolitan areas which correspond closely to Hansen's functional economic areas - the base of economic data appropriate for analysis is still more primitive. Heroic efforts to assemble and present census data by the Ministry of Urban Affairs constituted the only reasonably consistent set of statistics, and these are simply inadequate for regional economic modelling.

4.4 Omissions

We have emphasized research on the regional aspect of settlement policy in our foregoing discussion because it is in the least satisfactory shape of the three settlement issues we have presented for Canada. Housing research and energy are, by way of contrast, much more developed and hence are fully integrated into the policymaking process. These three areas have not been systematically researched with regard to economic impacts, and certainly their link to short-term economic concerns is rarely considered or discussed.

Beyond that, we hasten to stress that we have only focussed on a very small number of settlement issues and their connection to economic policy issues. These and other settlement issues are heavily influenced by, and in turn influence, social, political and environmental issues as well. Indeed, many might argue these other influences are more important than the economic. Whether that is or is not so, can only be assessed by research - and our suspicion based on our superficial and indirect discovery of research in those areas is that the state of research into non-economic impacts of settlement policies is even more unsatisfactory.

We would urge that a conference similar to this one be considered, in which at least the conceptual issues and basic linkages can begin to be identified. Otherwise, these potentially important matters will continue to sit on the back burner of settlements research.

CHAPTER 5

SUMMARY AND PROPOSED RESEARCH DIRECTIONS

This model monograph has provided a framework for discussing research on the relationship between settlement policy concerns and economic stability. This is merely a first step towards exploring a seriously neglected set of issues. We have suggested that both aspects of the relationship are important: the impact of settlement policies on inflation and unemployment, and the impact of stabilization policy on settlements.

It is evident from our survey of core issues (Chapter 2) that fundamental barriers have prevented significant systematic research in this area. First, the long-run perspectives that dominate settlement concerns have diverted attention from the shorter-term concerns our theme is addressing. Second, the traditional disciplinary boundaries that exist between scholars concerned with settlements on the one hand, and economic stability on the other, are largely unbridged.

Third, the state of theory and its rigorous application, particularly in the evolution of settlement policy, remains quite unsatisfactory. Finally, the absence of data, which is in part a result of the previous three barriers, serves itself to inhibit additional research.[1]

It is unrealistic at this time to expect all countries to attempt to formulate a comprehensive research agenda in this sphere. One possibility that the ECE might wish to consider is a joint project focussing on one country as a prototype. Given

sufficient time and adequate funding, the costs and benefits from this line of approach to settlement research could be ascertained and countries would have a more solid basis on which to decide whether they would find a similar approach to be cost effective for themselves.

In any event, a number of less ambitious but significant research questions have emerged from our review.

With regard to the economic impact of settlement policies, we would suggest the following:

1) A reassessment of the role of housing in economic stability. Particular concern should be given to the implications of new emphases on rehabilitation and renovation.

2) Research is necessary in the role of regional development policy as a contracyclical tool.

3) How does local government finance affect the stability of the local and national economy?

4) How does the degree of regional integration affect economic stability? Concerns here include both the nature of the urban system and interregional linkages.

5) The impact of regulation on regional efficiency and therefore on economic stability is an emerging issue.

6) The manner in which energy policy might be inducing economic instability via settlement issues is potentially significant.

As for the impact of economic policies for stabilization on settlements, the following themes have appeared:

1) The impact of policies, and particularly monetarism, not just on a changing national housing market, but more specifically on regional/local markets.

2) The consequences for regional income and employment trends.

3) The implications for local governments in terms of both revenue availability and service needs.

Beyond these, a whole host of research issues emerge from the review of Canadian research experience in Chapter 3. Since the vocation of the symposium is to compare these experiences across countries, it is not useful to try to present what would of necessity be a partial summary and incomplete conclusions at this point.

Footnote for Chapter 5

1. These issues were raised in a series of working group reports for the Economic Council of Canada in 1974. Two reports were issued as ECC discussion papers: D. Cameron, D.L. Emerson and N.H. Lithwick, "The Foundations of Canadian Regionalism", Discussion Paper No. 11; and J. Atcheson, D.L. Emerson and D. Vardy, "Regional and Urban Policy in Canada", Discussion Paper No. 12. In addition, a proposed research agenda for regional and urban policy studies was also submitted to the ECC by the working group.

   One issue stressed in particular by the working group was the importance of recognizing and developing data for functional economic regions, which correspond to the functional economic areas (FEA's) currently constituting the basis of spatial research in the U.S.

APPENDIX TO SECTION 3.3.1

A Catalogue of Canadian Research on Settlements in the 1970s

TABLE 3.3-1

SUBJECT MATTER CODING

1.0 HOUSING MARKET ANALYSIS & FORECASTS

1.1 Demand for Housing
- 1.1.1 Demand, Stock, Flow
- 1.1.2 Requirements
- 1.1.3 Needs
- 1.1.4 Type, Quality
- 1.1.5 Public Consumption

1.2 Supply of Housing
- 1.2.1 Design, Planning, Demonstration
- 1.2.2 New Construction, Development
- 1.2.3 Development Industry, Organization
- 1.2.4 Construction Labour
- 1.2.5 Productivity, Technical Progress, Innovation
- 1.2.6 Stock Adjustments, Renovation, Rehabilitation, Renewal
- 1.2.7 Condominium, Conversions, Infill

1.3 Market Performance
- 1.3.1 Models
- 1.3.2 Forecasts
- 1.3.3 Indicators
- 1.3.4 Data: Prices, Rents
- 1.3.5 Costs
- 1.3.6 Quantity
- 1.3.7 Quality
- 1.3.8 Surveys

1.4 Market Boundaries
- 1.4.1 Definition of Submarkets
- 1.4.2 Market Interdependencies

1.5 Market Adjustments
- 1.5.1 Unmet needs: Adequacy, Crowding
- 1.5.2 Suitability
- 1.5.3 Affordability
- 1.5.4 Filtering
- 1.5.5 Population Mobility
- 1.5.6 Satisfaction

TABLE 3.3-1 (cont'd)

SUBJECT MATTER CODING (cont'd)

2.0 CAPITAL MARKETS

2.1 Instruments
- 2.1.1 Mortgages
- 2.1.2 Insurance

2.2 Institutions
- 2.2.1 Industry Structure
- 2.2.2 Regulation

2.3 Market Performance
- 2.3.1 Availability of Capital
- 2.3.2 Cost of Capital, Interest Rates
- 2.3.3 Defaults

3.0 MARKET INTERVENTION & SOCIAL POLICY

3.1 Gaps
- 3.1.1 Rural
- 3.1.2 Elderly
- 3.1.3 Children
- 3.1.4 Native People
- 3.1.5 Handicapped
- 3.1.6 Poor
- 3.1.7 Discrimination

3.2 Social Housing
- 3.2.1 Public Housing
- 3.2.2 Coops
- 3.2.3 Non-Profit

3.3 Social Assistance
- 3.3.1 Shelter Allowance
- 3.3.2 ARP
- 3.3.3 MURB
- 3.3.4 Equity

TABLE 3.3-1 (cont'd)

SUBJECT MATTER CODING (cont'd)

3.4 Rent Control
- 3.4.1 Tenant Protection
- 3.4.2 Consequences
- 3.4.3 Removal

3.5 Fiscal Instruments
- 3.5.1 Tax Deductability of Mortgage Interest
- 3.5.2 Tax Deductability of Property Tax
- 3.5.3 Grants
- 3.5.4 Tax Expenditures

4.0 URBAN & COMMUNITY POLICY

4.1 Local Fiscal Concerns
- 4.1.1 Property Taxes
- 4.1.2 Grants
- 4.1.3 Expenditures
- 4.1.4 Service Levels
- 4.1.5 Debt and Financing

4.2 Zoning
- 4.2.1 Instruments
- 4.2.2 Planning
- 4.2.3 Development Control & Land Use Regulation

4.3 Land Use
- 4.3.1 CMHC Lands
- 4.3.2 Land Banking
- 4.3.3 Speculation
- 4.3.4 Land Market
- 4.3.5 Density, Infill
- 4.3.6 Transportation & Land Use

4.4 Environment

4.5 Urban Renewal

TABLE 3.3-1 (cont'd)

SUBJECT MATTER CODING (cont'd)

5.0 NATIONAL POLICY CONCERNS

5.1 Economic Policy
- 5.1.1 Inflation
- 5.1.2 Unemployment
- 5.1.3 Growth
- 5.1.4 Regional Development
- 5.1.5 Environment

5.2 Energy Policy
- 5.2.1 Technology
- 5.2.2 Conservation
- 5.2.3 Costs

5.3 Federal-Provincial

5.4 Urban Policy (Federal)
- 5.4.1 Housing Policy
- 5.4.2 Tax Policy for Housing

TABLE 3.3-2

CATEGORY 1 RESEARCHERS

CLASSIFICATION BY SUBJECT MATTER

NAME	SUBJECT MATTER AREA				
	1.0 HOUSING MARKETS	2.0 CAPITAL MARKETS	3.0 HOUSING MARKET POLICIES	4.0 URBAN POLICIES	5.0 NATIONAL POLICIES
Abt Associates	1.3		3.1/3.3	4.2 4.3	5.2
Aboucher, Alan	1.3	2.1			
Achour, Dominique	1.3		3.4	4.3	
Arnott, Richard	1.3				
Asselin, André		2.2	3.1		
Audain, Michael			3.1		5.4
Bairstow, Dale				4.3	
Bajic, Vladimir				4.2/4.3	
Barnard, Peter	1.1/1.3				
Barrett, Frank	1.1				5.4
Bartel, H.		2.1		4.3	
Baxter, David					
Biernacki, C.M.	1.3				
Binhammer, H.H.		2.0		4.1	
Bossons, John	1.1	2.0		4.3	
Bourne, Larry	1.0				5.1
Bradfield, M.					
Braul, W.	1.3				
Brennan, M.	1.3	2.0			
Brummel, A.C.	1.4				
Canadian, Facts	1.3	2.0		4.3	
Capozza, Dennis					
Carbonne, R.	1.3				
Caron, J-Paul		2.3		4.3	
Carr, Jack				4.3	
Carruthers, N.		2.3			
Chaput, Denis		2.0		4.1	
Chinloy, Peter	1.2				

TABLE 3.3-2 (Cont'd)

CATEGORY 1 RESEARCHERS

CLASSIFICATION BY SUBJECT MATTER

NAME	SUBJECT MATTER AREA				
	1.0 HOUSING MARKETS	2.0 CAPITAL MARKETS	3.0 HOUSING MARKET POLICIES	4.0 URBAN POLICIES	5.0 NATIONAL POLICIES
Chinloy, Peter	1.2			4.1	
Chung, Joseph	1.3			4.3	
Clatworthy, S.	1.3		3.2		
Clayton, Frank	1.0	2.1	3.5	4.1/4.3	
Clendenning, W.			3.4		
Cragg, John			3.4		
Cullingworth, J.B.	1.1				5.4
Currie, Cooper				4.3	
Dale-Johnson, D.				4.2	
Damas & Smith	1.2				
Davies, Gordon	1.3			4.3	
Denny, Michael				4.2	
Detomasi, D.D.					5.4
Dewees, Don				4.3	
Divay, Gerard				4.3	5.4
Downing, Paul				4.4	5.1
Dunhill Services	1.2/1.3				
Economic Cncl	1.2	2.0		4.3	
Eger, A.F.	1.3		3.4	4.2	
Ekos Res.	1.3				5.4
Elliot, Grover			3.3		
Emberly, R.	1.3				
Fallis, George	1.3	2.0	3.5		5.4
Fraser Inst.	1.1	2.0	3.4	4.2	
Frankena, Mark	1.1		3.4	4.3	
Fulton, Pat			3.3		

TABLE 3.3-2 (Cont'd)

CATEGORY 1 RESEARCHERS

CLASSIFICATION BY SUBJECT MATTER

NAME	SUBJECT MATTER AREA				
	1.0 HOUSING MARKETS	2.0 CAPITAL MARKETS	3.0 HOUSING MARKET POLICIES	4.0 URBAN POLICIES	5.0 NATIONAL POLICIES
Gagnon, J-M		2.1			
Gau, George		2.0	3.3		
Godbout, J.			3.4		
Goldberg, M.	1.1			4.3	
Graham, James	1.3				
Greenspan, D.				4.3	
Halpern, Paul		2.2			
Hamilton, Stan	1.3		3.4	4.3	
Hatch, James		2.2			
Heaney, Brenda	1.3				
Heung, Ray	1.3			4.3	
Hill, F.I.			3.1		
Hitchcock, J.	1.1		3.2		5.4
Ho, Lok Sang				4.1	
Hobart, Bob	1.3				
Hobson, P.				4.1	
Hodge, Gerald			3.1		
Homenuk, Peter			3.1		
Hum, Derek	1.3	2.1	3.3		
Hurtubise, Jules	1.2				
Informetrica					5.1
Ircha, M.C.				4.1	
Jaffaray, K.			3.4		
Jazairi, N.	1.3				
Johnson, K.	1.3		3.3		
Johnston, J.J.				4.1	
Jones, L.		2.2			
Jump, Greg					5.1

TABLE 3.3-2 (Cont'd)

CATEGORY 1 RESEARCHERS

CLASSIFICATION BY SUBJECT MATTER

NAME	SUBJECT MATTER AREA				
	1.0 HOUSING MARKETS	2.0 CAPITAL MARKETS	3.0 HOUSING MARKET POLICIES	4.0 URBAN POLICIES	5.0 NATIONAL POLICIES
Kaynak, Erdner	1.1				
Kesselman, J.		2.1			
Kirkland, J.	1.1				
Kitchen, Harry	1.3				
Landry, Anita	1.1				
Lapointe, Alain	1.3				
Lawther, L.	1.3				
Lefrançois, R.				4.3	5.1
Ley, David	1.2				
Llewelyn-Davies					5.4
Maher, C.A.	1.5				
Margolis, S.		2.3			
Mark, Jonathan	1.3				5.1
Marks, L.D.			3.4		
Markusen, J.R.				4.3	
Martin, Peter	1.5				
Maslove, A.M.	1.3				5.4
Mason, Greg	1.1			4.2	5.4
Mathews, Georges	1.1				5.4
McFadyen, S.	1.4			4.2	
Millerd, Frank					5.4
Miron, John	1.1				
Moore, Eric	1.3		3.1		
Morrison, Philip	1.2				
Muller, R.A.	1.3				
Neave, Edwin	1.1	2.0			
Nowland, David				4.0	

TABLE 3.3-2 (Cont'd)

CATEGORY 1 RESEARCHERS

CLASSIFICATION BY SUBJECT MATTER

NAME	SUBJECT MATTER AREA				
	1.0 HOUSING MARKETS	2.0 CAPITAL MARKETS	3.0 HOUSING MARKET POLICIES	4.0 URBAN POLICIES	5.0 NATIONAL POLICIES
Oikawa, George	1.2				
Pesando, James	1.3	2.0			5.1
Poapst, Jamie		2.0			
Pomp, Richard			3.5		
Priest, Gordon	1.3				
Proudfoot, S.				4.2	
Robinson, A.J.	1.2			4.1	
Robinson, Ira	1.3				
Rousseau, H-P		2.0	3.3	4.1	
Rowe, Andrew	1.1	2.3			5.1
Rudin, J.R.	1.2				
Rymes, T.K.	1.1				
Schaffner, R.					5.4
Schwartz, E.		2.0			
Scheffman, D.T.	1.1			4.3	5.2
Scissons, S.	1.3				
Sharpe, C.	1.2				
Siegal, Robert	1.1				
Silver, Irving	1.3			4.2	
Simmons, James	1.5				5.1
Skaburskis, A.				4.3	5.4
Slack, Enid				4.1	
Smith, Lawrence	1.3	2.3	3.5		5.4
Stabler, Jack				4.3	5.1
Steele, Marion	1.1		3.3		
Streich, Pat	1.5	2.2	3.3		5.4
Stone, Leroy			3.1		

TABLE 3.3-2 (Cont'd)

CATEGORY 1 RESEARCHERS

CLASSIFICATION BY SUBJECT MATTER

NAME	SUBJECT MATTER AREA				
	1.0 HOUSING MARKETS	2.0 CAPITAL MARKETS	3.0 HOUSING MARKET POLICIES	4.0 URBAN POLICIES	5.0 NATIONAL POLICIES
Thirsk, Wayne				4.1	5.3
Todd, John	1.3				
Urbanics	1.3				
Venne, Bernard	1.3				
Wargon, S.T.	1.1				
Wetton, C.	1.3				
Whitney, Wayne				4.3	
Williams, John G.				4.2	
Willson, K.	1.4				
Wolfe, H.G.				5.4	
Wrage, Peter			3.5		
Wyatt Co.		2.1			
Ycas, Marlynas	1.3				

TABLE 3.3-3

CATEGORY 2 RESEARCHERS

CLASSIFICATION BY SUBJECT MATTER

NAME	SUBJECT MATTER AREA				
	1.0 HOUSING MARKETS	2.0 CAPITAL MARKETS	3.0 HOUSING MARKET POLICIES	4.0 URBAN POLICIES	5.0 NATIONAL POLICIES
Aasen, C.					5.4
Amborski, D.				4.1	
Andrews, H.			3.1		
Anthony, W.			3.1		
Archer, P.				4.2	
Aucoin, P.					5.3
Auger, J.	1.2				
Barcelo, M.					5.4
Barbarese, D.	1.2				
Beauchamp, G.			3.1		
Berndt, E.R.					5.2
Berger, E.				4.3	
Betts, G.					5.4
Blumenfeld, H.				4.2	
Boden, F.			3.1		
Booth, A.	1.5				
Bousefield, J.				4.3	
B.M.R.				4.3	
Britton, John					5.4
Cameron, D.					5.4
CCSD			3.4		
Carrothers, G.					
Carter, Novia	1.0				
Cartwright, T.	1.2				
Clawson, M.				4.3	
Cluff & Cluff			3.1		
Comay, E.					5.4
Communitas			3.1		
Complan Research	1.3				
Cumming Cockburn				4.2	

TABLE 3.3-3 (Cont'd)

CATEGORY 2 RESEARCHERS

CLASSIFICATION BY SUBJECT MATTER

NAME	SUBJECT MATTER AREA				
	1.0 HOUSING MARKETS	2.0 CAPITAL MARKETS	3.0 HOUSING MARKET POLICIES	4.0 URBAN POLICIES	5.0 NATIONAL POLICIES
Davidson, C.					
Diamond, A.J.	1.2				
Dansereau, F.	1.2				
Duncan, J.	1.5				
Elliot,	1.1				
Falta, L.			3.1		
Fenton, R.					5.2
Gardner, M					
Gertler, L.					5.4
Gibbon, B.H.	1.2				
Gillis, R.A.			3.0		
Globerman, S.					5.1
Gutman, G.			3.1		
Harris, R.					
Harrison, P.					5.1
Harvey, A.					5.1
Hobson, P.				4.1	
Hulbert, R.E.		2.6			
Ireton, V.M.					5.2
Jiminez, E.					
Kalbach, W.	1.4				
Klein & Sears					5.1

TABLE 3.3-3 (Cont'd)

CATEGORY 2 RESEARCHERS

CLASSIFICATION BY SUBJECT MATTER

NAME	SUBJECT MATTER AREA				
	1.0 HOUSING MARKETS	2.0 CAPITAL MARKETS	3.0 HOUSING MARKET POLICIES	4.0 URBAN POLICIES	5.0 NATIONAL POLICIES
Lang, R.					5.2
Lang, V.	1.2				
Lea, N.D.				4.3	
Lee, T.					5.2
Lloyd, A.			3.2		
Lloyd, T.			3.2		
Lyon, B.					
Maass, B.	1.3				
Makuch, S.				4.2	
Marshall, Macklin				4.4	
Martin, L.				4.2	
Martin, T.E.					5.2
McCann, L.D.					5.4
McClain, J.					5.4
McDonald, H.			3.3		
McDowell, K.	1.3/1.5				
McGregor, J.	1.5				
McKee, C.			3.2		
McKellar, J.				4.3	
Medicus			3.1		
Mercer, J.			3.2		
Michelson, Wm.			3.1		
Middleton, Assoc.					5.2
Morrisset, P.	1.2				
Moscovitch, A.			3.0		
Murray, A.					5.4
Myers, B.				4.3	
Parenteau, R.					5.4
Paterson, D.	1.1				

TABLE 3.3-3 (Cont'd)

CATEGORY 2 RESEARCHERS

CLASSIFICATION BY SUBJECT MATTER

NAME	SUBJECT MATTER AREA				
	1.0 HOUSING MARKETS	2.0 CAPITAL MARKETS	3.0 HOUSING MARKET POLICIES	4.0 URBAN POLICIES	5.0 NATIONAL POLICIES
Patterson, J.			3.4		
Penz, P.					
Perks, Wm.					5.4
Phillips & Phillips			3.1		
Pinfield, L.					5.1
Pratt, G.	1.1				
Pressman, N.					5.4
Price Waterhouse	1.3				5.4
Procos, D.			3.1		
Proctor & Redfern				4.2	
Proudfoot, S.				4.2	
Raphael, A.	1.3				
Ravis, D.				4.3	
Rich, S.	1.3				
Richmond, A.	1.5				
Richmond, D.				4.1	
Runge, D.			3.2		
Rose, A.					5.4
Sands, G.	1.3				
St. Pierre, G.	1.2				
Sarkar, A.					5.2
Schiff, M.	1.1				
Seth & Dickson					5.4
Si Ming Li	1.3				
Siegel, D.					5.4
Smith, P.J.	1.2				
SPC Toronto			3.0		
SP Res. Assoc.	1.2		3.3		
Spragge, G.	1.5				

TABLE 3.3-3 (Cont'd)

CATEGORY 2 RESEARCHERS

CLASSIFICATION BY SUBJECT MATTER

NAME	SUBJECT MATTER AREA				
	1.0 HOUSING MARKETS	2.0 CAPITAL MARKETS	3.0 HOUSING MARKET POLICIES	4.0 URBAN POLICIES	5.0 NATIONAL POLICIES
Spragge, G.	1.5				
Spurr, P.				4.3	
Stamm, G.	1.3				
Stanley Assoc.					5.1
Staranczak, G.			3.2		
Steele, Bill					5.2
Stevenson-Kellogg					5.4
Stone, L.			3.1		
Stutz, J.R.			3.2		
Strong & Hall					5.4
Suichies, E.				4.3	
Sussex Group					
Sylvestre, P.			3.2		
Teasdale, P.	1.5				
Thompson-Berwick	1.2				
Thorburn, D.	1.3				
Vaillancourt, L.	1.1				
Vischer, J.			3.2		5.4
Warner, S.	1.1				
Washburn					5.1
Watkins, G.C.					5.2
Wellman, B.	1.4				
Western RE Res.	1.2				
Wheeler, M.			3.0		
White, R.	1.1				
Williamson, A.H.					5.2
Wilson, S.S.	1.3				
Woodridge, P.				4.2	
Woods, Gordon			3.2		

TABLE 3.3-3 (Cont'd)

CATEGORY 2 RESEARCHERS

CLASSIFICATION BY SUBJECT MATTER

NAME	SUBJECT MATTER AREA				
	1.0 HOUSING MARKETS	2.0 CAPITAL MARKETS	3.0 HOUSING MARKET POLICIES	4.0 URBAN POLICIES	5.0 NATIONAL POLICIES
Yeates, M.	1.5				
Young, W.			3.1		
Zohar, U.				4.3	
Zubot, B.				4.5	